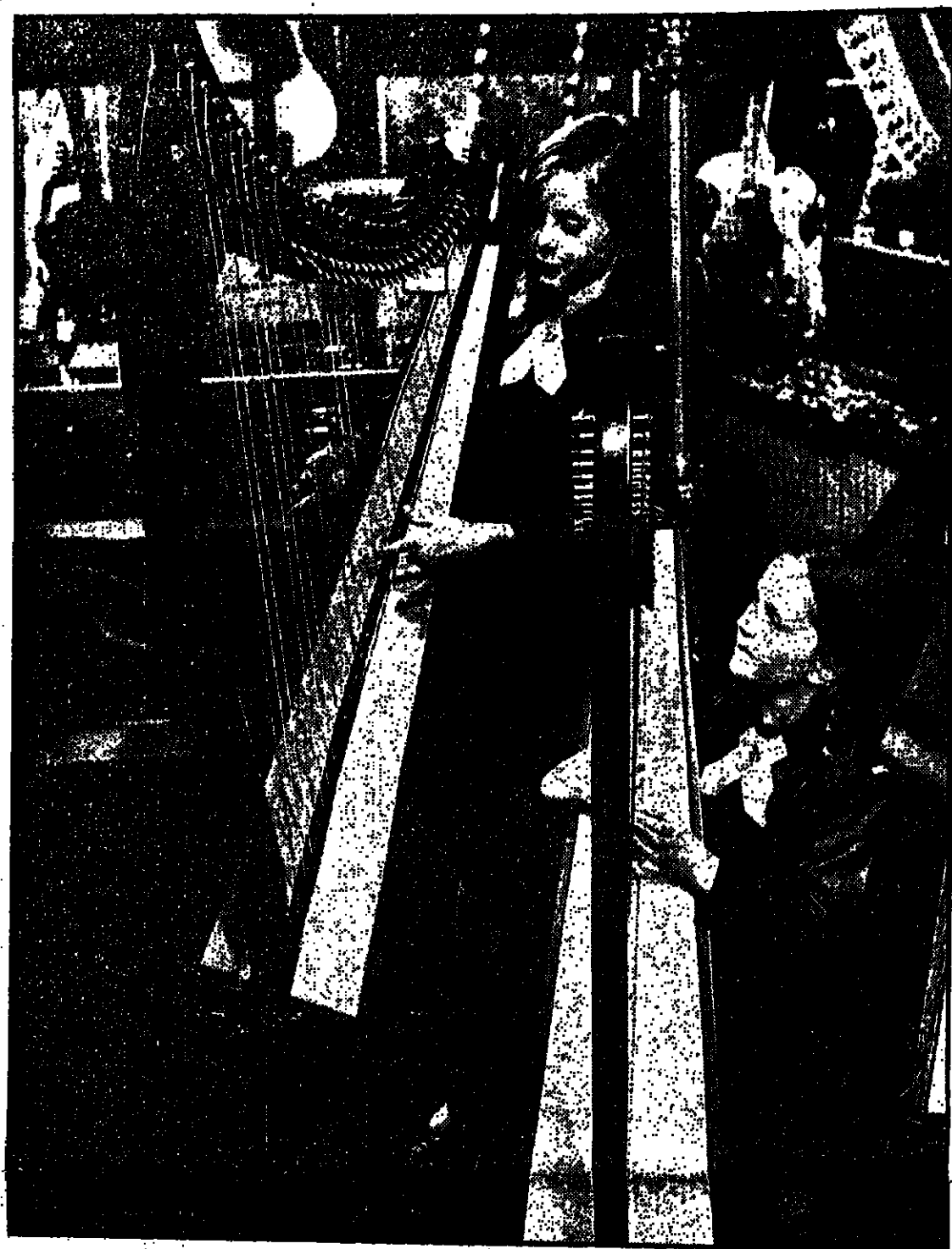
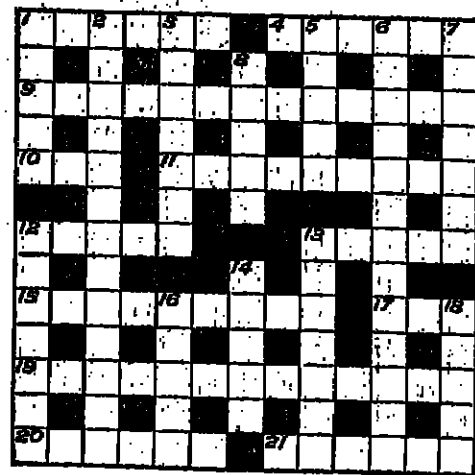




Two new folk harps, small enough for young children to play and costing around £230 compared to £2,000 for a concert harp, were tried out in a London music shop before Christmas. They were designed by Victor Salvi, the harp manufacturer.

Crossword No 1,014



Across

- 1 Scientific link with history in geology (6).
- 4 Homely chat about the French (6).
- 9 Radio for the bridal train? (8, 5).
- 10 Commander in motor accident (3).
- 11 Building material for the musonic fraternity? (9).
- 12 But it could be a purely pedestrian afterthought (5).

Down

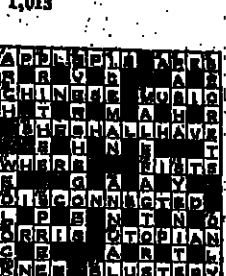
- 13 Ho is in the toils for tea (5).
- 15 Duck with affinity with spoonbill? (9).
- 17 Five for the cave men (3).
- 19 Could hardly be the address of the Georgian Circle (7, 6).
- 20 Potential effort at food production (6).
- 21 Lacks an eye for the compass (6).

Down

- 1 Total bill for a shrub (5).

- 2 Clime in the literary meadow (4, 3, 6).
- 3 Comparatively starchy (7).
- 5 They exhibit nothing within limits (5).
- 6, 14 Neither a pompous nor a circumstantial description of England today (4, 2, 4, 3, 5).
- 7 They make up the mosaic rest (7).
- 8 "She did not take life easy... But I, being young and foolish, with her would not..." (Yeats) (5).
- 12 Stood up to lead the cheering (4, 3).
- 13 Flamboyant unladen ship (7).
- 14 See 6.
- 16 Bashful who never changed (5).
- 18 Distant notice on a tea shop (5).

Solution to Puzzle No 1,013



Maths

X	X+2
2x+3	3x

A magic square puzzle: For what value of x can the magic square above be completed so that the numbers in each row, column and diagonal have the same total? Complete the square and verify that the sum of the numbers in the five empty cells is $2x$ more than the sum of the numbers in the four corner cells.

Paradox, fallacy or leg-pull? This problem in "transcendental probabilities" is taken from "Pillows

Problems" by the Reverend C. L. Dodgson, better known as Lewis Carroll. "A bag contains two counters, as to which nothing is known except that each is either white or black. Ascertain their colours without taking them out of the bag." Dodgson's solution is: "one white, one black." His argument is this: the chances that the bag contains BB, BW or WW are 1, 1, 1 respectively. Add a B to those in the bag; then the chance of drawing a B from the bag is $\frac{1}{3} \times 1 + \frac{1}{3} \times 1 + \frac{1}{3} \times 2 = \frac{4}{3}$. Hence the bag must have contained BBW, since any other state of things would not give a two-thirds chance of drawing a B. So before the B was added, the bag must have contained B and W. Q.E.P. This comment is that "this result may appear to be abnormal or even paradoxical". Can you spot the fallacy in the argument? A similar argument applied to the case of a bag containing three counters, either B or W, leads to the conclusion that if a B is added

the chance of drawing a B is no longer $\frac{4}{3}$ but $\frac{5}{4}$. The counter-argument could produce a B, so the deduction seems to be that there are 5 B and 3 W now in the bag. Percentage puzzles: (i) If of monkey nuts were sold per cent and the sale was 20 per cent, what was the effect on the receipt of monkey nuts?

(ii) A man drives a car of 50 miles by car. If his average speed by car is 50 miles per hour, what percentage of the time of the journey is he in the car? (iii) If the man who drives a car of 50 miles by car. If his average speed by car is 50 miles per hour, what percentage of the time of the journey is he in the car? (iv) If the length of the cube is increased by 10%, show that its volume is increased by more than 30%.

15	2
8	10
7	18

Will they still be looking for jobs in July when thousands of new school leavers join the unemployment register? The Manpower Services Commission fears the worst and will shortly be putting emergency plans to the Government. The accent is likely to be on training—more special measures to encourage industry to keep up its own training, and greater emphasis on training in the job creation programme. Report by Philip Venning, page 3.

More haste less speed

The new year has opened with a frenzy of barometer tapping. The Chancellor of the Exchequer has licked his index finger, held it aloft, and given the world the benefit of his considered assessment of our economic prospects. The Prime Minister has added his word of encouragement, hedged about with appropriate warning noises. And the teachers have taken their portable aneroids to suitable conference centres and have used their seasonal get-togethers to read the meteorological tea-leaves. A visitor to the AMA (page 6) this year must have emerged with a feeling that, after years of reorganization and innovation, there is now a strong lobby in favour of a period of consolidation and stability. This is not the same as a backlash. Nor yet does it betoken a last-ditch resistance to the comprehensive school policy from the grammar school old-guard. Rather, it indicates a certain weariness in the face of aggressive change—change of school organization, overlapping with local government reorganization and raising the school leaving age, curriculum reform and now

the proposed revision of the secondary school examination system. One impression which is coming through from many sources—the AMA and the science teachers in particular—is that nobody is prepared to be rushed into hasty decisions about changes in secondary school examinations. For various reasons the Schools Council seems to have made a first-rate hash of the all-important job of communicating to the schools the substance of the joint examination sub-committee's deliberations on the Common Examination at 16 plus. The available time for discussion has been cut by months by the failure to distribute enough copies—a perfect example of penny-pinching—and one by one the subject associations have been calling for more time. There must be a great deal to be said, now, for postponing any decision by the council for another 12 months and for allowing time for more evidence from experimental examinations. There is no need for precipitate action and everything to be said for ironing out difficulties before the new examination is generally introduced. It is quite obvious that there are still

a lot of questions to answer. Those who have doubts about the feasibility of designing examinations which simultaneously meet the needs of bright and dull children do not seem to have been satisfied by what has so far been published on the basis of the feasibility studies. It is not clear, either, that the new examination is going to be subordinate to the curriculum; as things now stand it looks much more likely that it will dominate the curriculum as much as any previous examination system. In particular, the specific technical difficulties of examining a wide range of pupils will make it necessary to tailor syllabuses to this examination imperative, rather than put the desirable content of study in the forefront of the curricular debate. All of which suggests that more time is needed to explore the capacious ambiguities of the phrase "a common system of examining at 16 plus", as distinct from the notion of a common examination. Admittedly, it is the spokesman for the traditional, academic subject-based, disciplines who have been on parade in the last few days. Many of the arguments

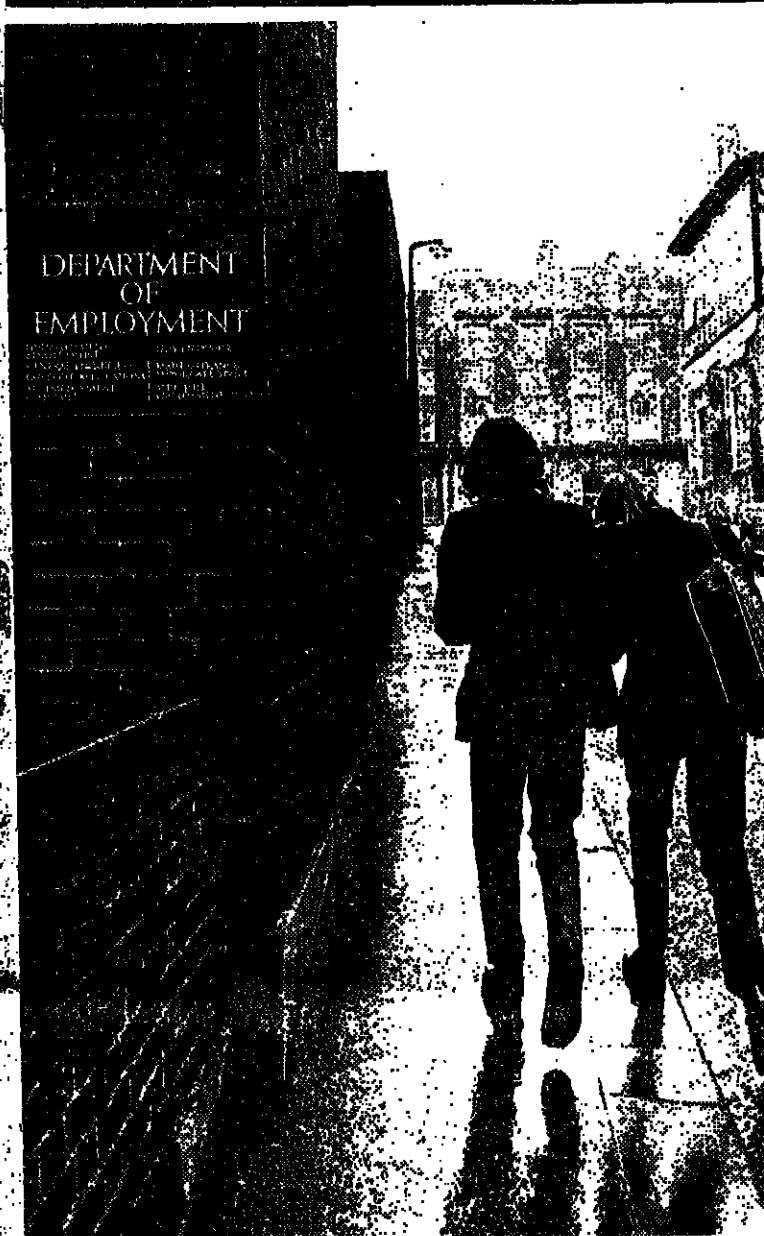
No comment

The theft of 21 cartridges containing 35mm filmstrips, valued at £63, from Comprehensive School, has baffled the headmaster, Mr. ... said today: "They are used for teaching history, and they are not the sort of thing that any child would want. We suspect some child has taken them, but you wouldn't expect a child to be that interested in ancient Rome, for example." — from the Bristol Evening Post.

THE TIMES Educational Supplement

FRIDAY JANUARY 9 1976 NUMBER 3162

FIRST PUBLISHED 1910 PRICE 10p



Value for money at all levels

Charles Carter tells the North of England conference that essential citizens like doctors, teachers and engineers should get their higher education free, the rest by repayable loans. Alfred Yates, director of the NFER, advocates national tests to assess school standards and "end the acrimonious debate". Stephen Cohen reports from the conference page 6

Lecturers will fight redundancies

Tom Driver, secretary of the newly-formed National Association of Teachers in Further and Higher Education, says they are pledged to fight all redundancies page 5

My mistakes, by Terry Ellis

Two mistakes were made in the introduction of team teaching in the head tells the inquiry, now in its tenth week page 5

'I've got those red-tape blues ...'



Connecting again

Richard Hoggart (above) starts work this week as principal of Goldsmith's College, London. Interview by Christopher Griffin-Boule page 17

Equal rights in the lab

The majority of girls still do no science at school, the Association for Science Education were told at their conference page 8

Surrey with the fringe on top

DES ask Surrey to explain why they are spending so much on gifted children page 3

Daguerreotypes

Sue Lerman discusses a new documentary film on "village" life in a corner of Paris page 20

All-in the same boat?

London's grammar schools are now preparing to go comprehensive, many of them on their own and linked to other schools only at six-form level. But 15 face the difficult business of amalgamation. Arlissides talked to three of these Arlissides, page 72

TES Music Festival

Full details for would-be entrants to this year's National Festival of Music for Youth page 70

Science, page 11
Is there some reason why normal body cells cannot be used as the genetic basis for the construction of a complete individual? asks John Maudsley

Foreign, page 14
United States: teaching union to back presidential candidate; Sweden: record numbers enrol for adult courses; Uganda: import curbs on textbooks.

Letters, page 15
Rights of minorities; immigrants held back by language; advice on reactionaries; violent behaviour.

Features, pages 18-19
Pat Brockman on mixed-ability French in Hockney; Jill Turner on Oak Wood special school, in Walsall.

Books, pages 21-25
Maurice Kogan on social policy; Guy Neave on the history of education; Richard Waller and Robin Cohen on Africa; B. S. Roberson and Jim Anthony on geography; commerce and religious education textbooks.

Resources, pages 26-27
Owen Surridge on the art of transparency-making; reviews of mathematics and science materials; Cyril Isemberg on the use of soap films in science.

Talkback, page 28
Don Ryder on children with reading difficulties; G. A. Rowlands on links for an open college.

Arts reviews, pages 70-71
John Peter on Peter Hall's *Hamlet*; Michael Clarke on art; Christopher Griffin-Boule on documentaries; Philip Venning on further education.

Leaders, page 2; personal column, page 41; People, pages 11, 19-21, page 16; Buckley, crossword, bridge, page 72.

Classified ad index 31

TES Extra:
Travel
Planning for the next time pages 25-28

Next steps for London

The continued existence in London of some 40 grammar schools, taking half the children of above average ability, has long made a mockery of the ILEA's claim to be comprehensive. Now, however, the future seemed secure until the logic of falling numbers forced capitulation.

As the population of the inner city began to fall, the twin prospects suddenly opened up of these schools' being sold or more of the available bright children while numbers and IQ levels in the comprehensive schools sank remorselessly. The authority's threat to close to maintain schools who defied their policy became credible because the alternative was intolerable.

The time for lamentations over lost schools and for exhortations to last ditch stands is now passed. Within the constraints of the Section 13 procedures, plans for reorganization are going ahead. Arisides reports on the state of play in three of the schools (next page).

Many of those most closely involved have come to realize that sitting now in sackcloth and ashes, or seeking ways to obstruct would result in gloom, pessimism, cries of sinking ship, and a totally pointless prolongation of the situation which staff and pupils are going to have to weather in the next few years. The job will be hard enough without reinforcing entrenched attitudes of the kind which breed playground violence and the mass departure of invulnerable teachers for quieter pastures outside London.

The time has now come to give the pessimists the benefit of the doubt. Their argument runs roughly thus: now that the decision is made, let it be made to begin with. It is an exciting challenge for all London schools. For a good many existing comprehensives it will mean doubling and more than doubling their band one intake. For the transformed grammar schools there will be opportunities to broaden teaching skills and broaden the outlook of the children. Given the goodwill of the grammar school staff, given the will particu-

larly to stay in London, they will find themselves much in demand in comprehensive who will more than ever be in need of academic staff who know what can be expected from bright 11-year-olds. Similarly comprehensive teachers will now be presented with opportunities in grammar schools where a largely academic staff find themselves flummoxed by children with poor basic skills.

In short both groups have much to offer and, if things go well, the needed faculty, the primary schools could suddenly find that their complacency is shaken by secondary teachers accustomed to expect the best from 11-year-olds.

What is clear is that behind the rhetoric there is a formidable task. Success is by no means guaranteed, and the possibility of large-scale and well-publicised disaster is uncomfortably real. However success is to be defined, it can only be conditional on the goodwill and determination of all concerned, and on the specific support policies adopted by the ILEA. Can the ILEA in present circumstances provide the necessary resources—the building work needed to adapt schools, the teaching materials to transform curricula and so on? (London has got some £3m of the comprehensive building money.) Can the ILEA provide the in-service training which and when it is needed? (Mr James Rudden's appointment to a special advisory headship to help schools in transition is a good sign.)

In the light of what is coming out in the Tyndale inquiry is the leadership of the authority capable of handling the managerial situation which this will give rise to? Above all, can the ILEA carry through the planning of sixth-form resources, far from complete and face up to the twin but contrary challenges of the overlarge giants on the one hand, with feeble sixth forms, and the new mini-comprehensives on the other, which will depend for their policy, post-16, on really effective, highly organized, systems of planning and cooperation between institutions?

In place of work

Once upon a time, fathers used to say to their sons, and rather more infrequently to their daughters: "The world does not owe you a living." Any father who tried that line of argument now would be laughed out of court. We can hardly yet be said to love our neighbours as ourselves, or as trade unions love themselves, but we do accept that our first duty to them collectively, is to see that body and soul are kept together in a style not so far short of that to which people have accustomed them.

This can leave the 16-year-old school-leaver with an embarrassing choice. He (read "or she" throughout) could, of course, work. Even now, in the midst of the recession, there are parts of the country—London is one example—where vacancies exceed the number of registered unemployed. But let us assume that he is one of those who either does not have the qualifications to match the vacancies, or considers the hours and conditions of work of the available jobs to be too unpleasant.

He could choose to do nothing, and draw, say, £7.70 a week if he benefits from a level of unemployment benefit. Or he could join a course at a university or polytechnic, in which case he would be entitled to a grant of up to £250 for six to nine months of the year, supplementary benefit for the remainder. Or he could hitch up to work as an untrained social worker (see page 33). The job would be short-lived, probably not more than

six months, but in return for that he might get a modicum of on-the-job training and, if he has thought about it at all, he would realize that such schemes are almost bound to go on into next year.

Whatever he opts for, and how ever much he takes home, practically all of it will come from the public coffers. It is difficult to know what considerations would, or should, influence his choice. It is even harder to guess at the thinking of the various options. It is not necessary to criticise any of them on their own: it is right that the out-of-work should be given sustenance and that students should case, though not perhaps such an obvious one, for giving £40m to the Manpower Services Commission for 275 young people in Sunderland.

But, cosmetics apart, is that grant the best use that can be found for a spare £40m? It may be, but there is no evidence—and certainly no public evidence—that the case between various priorities has been argued as it ought to have been (see John Mackintosh's article last week). For all the logic (unexpressed but clearly near the surface for all that) of job creation schemes for unemployed and underemployed young people—and these are likely to be more, rather than less, as time goes on—there is a Government as employer of last resort, with some labour demanded out. However it may be wrapped in compulsory work experience for all school-leavers, for example, that is what it would amount to.

The rake-off's progress (or How I tried to cash in my pension)

I have been back on the pills again—the ones I used to take when I was teaching. It would not surprise me if half the education payroll was on them. Every school in the country a branch of Boots.

Anyway, this time it all began when I decided to buy a freezer—yes, you know, one of those big white chests for storing your surplus fruit and pigs in. I had just become self-employed. With a couple of contracts for books under my belt, two or three commissions for minor but edifying works, a pile of books and admitted a full-time working wife to make the bread, I had leaped unforgettably into cocky confidence.

Not only a freezer, but a new bed, bookshelves, and yes, dammit, carpet for the stairs (though nothing flashy in case the man from the Revenue called with his skeleton key, Armatite rifle and jelly for the boy's moneybox).

And what would I use to convert a four-storey Victorian pad over-looking the canal into a Tutenkhamun trove of consumer durables? The answer came in one of those once-in-a-lifetime flashes: I imagined as Newton felt beaten to a pulp in a cider orchard, or as a curriculum revolutionary first experiences the idea of a Schools Council project. I would, quite simply, put my old age into pawn and take out my teacher's superannuation.

I filled in the application forms and sent them off to the DES Pension Branch in Darlington. Then I splashed whisky in the cat's milk, stuffed the hamster with avocado and sat back, computing my rake-off.

I had started investing in 1969, before the miners struck, before the Wedgbe Benn threw his way, before Thatcher started hoarding. What a girl! I could guess how she had operated at the DES. Take six per cent of a teacher's pay cheque, launder it in Zurich, convert it into petrodollars, double the number, your first thought of, cash your chips for Kruggerands, and still have time for a hour under the drier! Pog O' My Heart, I Love You!

That 10 per cent deductible for tax (Leafflet 381 Pen) was OK by me—a decent cut for the boys who had played the market for Muggle you up first—it is good departmental training. Two months later I received an under-sized cheque as "payment in respect of superannuation contributions paid in error in respect of non-pensionable service during the period from 1.9.73 to 31.8.75". Oh, and taxed at 33 per cent.

"Paid in error? Don't you mean received and used fraudulently? I mean, why did you keep quiet for two whole years?"

"I'm afraid we can't discuss..."

"But the Council for Educational Technology..."

"I worked for them. The Council for Educational Technology—set up, financed and declared composites by the Department of Education and Science to advise the Secretary of State..."

"The don't know of it."

"We would advise you to read the Teachers' Superannuation Regulations..."

"Would you send me a copy?"

"They are published by HMSO and are obtainable from booksellers..."

"They weren't, you know. They weren't in Blackwell's, or in Parker's; they weren't in the public library, or in the Social Science Library, or in the library of the Department of Educational Studies, or even in the State Papers Room of great Bodley itself."

"And if they weren't there, fellows, I assumed that either, one, they didn't exist; or two, they did, but in so small an edition that the vast majority of those whose desks they would regulate, wouldn't notice them. I went and bought a bed with the tickers that had survived the taxman. By that time I was already feeling for the 33 per cent of bed of it. It wasn't there—nearly two feet."

"But how survived even that bitterness and waited for the cheque that would finally redeem my bit of the bullion—the payoff for four years' hard in one of Her Majesty's comps. After a month of insomnia, it still hadn't come. I telephoned Port Knox in Darlington."

"There's been a delay," said. "I wouldn't have known."

"Oxfordshire County Council have not paid your pension for the period April 1 to August 1973."

"Nineteen seventy when?"

"There are times in an man's life when he saves, set by John Mills. My slacked on the receiver and lower lip trembled, but below the nostrils locked at "I see," I said.

"I had two hands on the and a chill of death via when I Oxfordshire County Council."

"Can you hold on?" asked young woman.

"I heard so," I didn't reg lower the nostrils and told me "they" had replied to the department's letter about my (my problem) some time later.

"Back to Port Knox."

"They always say that, the authorities. They'll post it, Honour our thieves. I don't down the line and the laughter. You don't get many laughs Monday morning."

"We'll write to Oxfordshire," said. "We're not allowed to make phone calls at this time of because of the expense."

"I didn't say it and I must be laughing because he chuckled. I took a pill and then came the car's milk. I watched as he up in the corner."

"Do you know what you're to out pussy?" I said. "I want a freeway."

Later that afternoon I took pills in soda and chased the last of the Johnnie Walker head cleared and I played a drums. What's three per cent on six per cent of your price index is up 25 per cent. I came to with my head a pussy's. His eyes were bloodshot. You can't pull the for, speak, over a car's eyes, so I put the John Mills bit with I rolled over on my back and his claws.

"You try skinning me, pal?" said. "All the others are hain't go."

Tony Howard

Letters to the Editor

Alarm from both sides on exams at 16-plus

Sir—We write to express our alarm at the prospect of O level examinations in English being more and more assessed internally by schools, and of A level in direct course following the same pattern. At yet the practice may not be widespread but we have reason to fear that it will increasingly become the trend in examining. We also feel apprehensive about the proposal recently made by the Schools Council to merge O level and CSE examinations will aggravate matters.

All of the signatories to this letter are concerned with admissions to universities and polytechnics, either as heads of departments or college tutors. While none of us would per haps wish to claim that the present GCE system provides a wholly dependable test of a candidate's quality, it is greatly to be preferred to the chaotic system that threatens. English, the most popular at present of all arts subjects, is already posing very great problems to all of us. We want to retain such objective tests as the present examinations can give, administered as they are by universities here over which the

HENRY GIFFORD (Bristol University), FRANCIS BERRY (Royal Holloway College, London), P. BRETTE (Hull University), J. A. V. CAPPLE (Hull University), C. BRIAN COX (Manchester University), JOAN GODFREY (Aberpool Polytechnic), Sir—We view with concern some parts of the statement made by the Joint Oxford GCE boards about the proposals for the 16-plus examination.

Their proposal that more attention should be given to the possibility of setting up two types of 16-plus examination, with a single coordi-

nated syllabus, provides just the type of inflexibility from which schools are trying to free themselves.

The crux of their argument seems to be that universities should continue to play a major role in examining 16-year-old school pupils in order "to ensure the maintenance of good standards". The corollary to this is that the governing body of examination boards.

Teachers are highly trained professionals; if they are not then we should look to the training institutions for many of the reasons that teachers are expected to run courses for their pupils then surely they have the right to assess their pupils' performances in those courses.

The secretary of the Oxford Delegacy's veiled threats that "people coming up to university will not properly prepared the first degree course could be called into question" is not the sort of statement which helps to develop a sound and exciting project for the education of all directly involved in the education of 16-year-olds.

We see the 16-plus as an examination for all and would hope that there would not be an attempt to form splinter groups, outside the new scheme.

R. H. MCGRAW, Deputy head and school 16-plus committee, Matthew Humberstone School, Cleethorpes.

More letters, page 15.

Emergency job plans already in hand for summer leavers

by Philip Venning

This year's school leavers who cannot get jobs are likely to be offered places on job creation schemes with a much greater degree of training than this year. They will also get the chance to continue training when the schemes end.

This is one of the plans likely to be discussed in the next few weeks when the Government and the Manpower Services Commission meet to devise ways of coping with the big influx of school leavers who are expected to swell the unemployment registers in the summer.

Although the most recent figures (for December) show another healthy fall in the number of last year's leavers still without jobs—from 44,000 to 35,000—many of them will probably still be without jobs in the summer.

A large number of job creation schemes have only just started this week and many more are in the pipeline. But some of the earliest ones will be coming to an end shortly, raising a number of key questions. What happens to the young people on the schemes? Will they be taken on to other schemes? Will the present schemes be extended? Or will they go back to claiming supplementary benefits?

There is also uncertainty about what to do with the large number of young people whose first year of training under the Training Awards Scheme comes to an end in the summer and who are not offered jobs which will allow them to continue it.

One of the commonest criticisms of the job creation programme is that the training part of many schemes is inadequate, and officials admit that some of the earliest schemes were cobbled together too fast without paying enough attention to training.

Mr Chris Hayes, of the Training Services Agency, who are closely

concerned with the job creation programme, said: "If the programme continues this year then we definitely want to see a higher, systematic, training content. The TSA should play a more active part in advising those who put up the schemes."

There is not going to be a single national plan for all young people who leave job creation. But the TSA are already looking at ways of offering continued training, and at a conference in London on Tuesday Mr John Oxt, director of the MSC, called on industrialists to take young people from job creation schemes on to their own training programmes.

One possibility is that the young people might move on to short courses specially provided by the TSA. This year the TSA are aiming to provide basic industrial courses lasting about 13 weeks for up to 6,000 young people, as well as a number of occupational selection courses. There could be room for some of them on these courses.

In Liverpool, for example, young people will soon begin a two-week course on decorating at a further education college in preparation for a job creation scheme decorating old people's homes. When the scheme ends, those still without jobs will do an extra 11 weeks training, completing a full "limited skills course".

The possibility of running longer courses gets into difficult waters, however—not least because people under 19 are not eligible for courses offered under the Training Opportunities Scheme to remain adults.

The amount of training on projects that have already been approved varies enormously. Mr David Bates, who is in charge of the job creation programme, said this week that about 80 per cent of projects included some training.

In some cases this is fairly specific training, for example, a scheme in Northern Ireland trains young people to work with glass. In others, the chief training seems to be of an induction kind—simply teaching young people what a working day is like. About 20 per cent of projects are thought to include day release.

One idea being given official consideration is that attempts should be made to relate the element of on-the-job training in job creation schemes to continued training at the school's completion. Recently the TSA appointed a team of about a dozen roving "project advisers" who will be visiting each project, and, among other things, advising about training.

Even though it may prove too difficult to give credit for a specific amount of training, even leaving schemes will be given an impressive looking certificate describing how much work he or she has put in and what the work was.

This week also saw a new type of project agreed by the MSC. Unemployed teenagers in Sunderland will be going back to school as helpers in special schools and pre-school playgroups. A £400,000 grant from the MSC will create jobs for up to 250 young people.

The project, which was devised by Community Service Volunteers, is regarded as a new departure for the job creation programme. For the first time, large numbers of young people will be employed full time to supplement the work of under-staffed social service departments.

Mr Mrs Elisabeth Hoodless, executive director of CSV, said that none of the young people would be doing jobs normally done by professionals. They would not be feeding or bathing old people, for example.

DES fear teachers' grip on 16-plus exam

by Sue Cameron

There are signs that the Department of Education are worried about proposals for a common examination system at 16-plus.

Senior officials, it is understood, have been discussing the plan for some time on the grounds that they could affect standards. They are particularly concerned about demands for the replacement of existing GCE and CSE boards by new boards entirely controlled by teachers.

They fear that teachers could be given too much power over examinations and the curriculum although they are not publicly accountable for their actions. And they doubt whether a common examination system will be able to stretch clever pupils and still be fair to the less able.

Next week the governors of the Schools Council are to decide when they will consider the 16-plus and Certificate of Extended Education reports. There have been requests to postpone a decision. At their conference last week (page 6) the Assistant Masters' Association demanded more feasibility studies before a final decision is made.

The 42,000 members of the AMA, most of them graduates, are the men who actually teach and examine GCE O level. They are clearly worried about the pace of changes

being urged on the schools. Last week delegates inside and outside the conference hall were concerned about the results of the Schools Council's feasibility studies, the role to be played by the universities if a common system is introduced and the proposals for a new administrative structure for examinations.

But Mr Peter Smith, assistant secretary of the AMA, said this week that the association were not opposed to examination reform as such. Some teachers who were against the present proposals for 16-plus examinations would object to any change. This was not the view of the AMA.

"We feel that changes which might last for the next 30 years should be very carefully considered. We do not want to rush into a new system only to discover that we have replaced the old disadvantages by a new set of problems."

There is far too strong a tendency to regard realistic caution as dyed-in-the-wool reaction. Those who do not hurry to defend every proposed reorganization, every fashionable teaching technique are sometimes treated as educational pariahs. "But educational change should not be forced like rhubarb—the result can be very pallid."

Figures hide jobless

The National Union of Teachers claimed this week that for more teachers are unemployed than Government figures suggest.

A survey of 848 unemployed teachers, they say, showed that 54 per cent of them had not put their names on the Professional and Executive Register. This proves that the number of jobless teachers is much higher than the 3,911 given

by the register last September. Mr Fred Jarvis, general secretary of the NUT, said this week that the survey showed a "deplorable state of affairs".

"It is a tragedy that so many teachers are being turned away from our schools when nearly one in five primary schools has more than 35 pupils and it costs more than £7,000 to train a teacher."

Reading gets better in Wiltshire

Reading standards of Wiltshire children are improving, according to a county council survey. Four eight-year-olds in the county are now reading at a level equivalent to three years ago.

Standards also appear to have improved among the 10 to 11-year-olds, said a spokesman.

Mr Leslie Bradford, senior advisory remedial teacher in the educational psychological service, said the "marked improvement among younger children was partly due to the large number of courses for teachers in the county."

All first year junior children in Wiltshire have been tested since 1969. In 1972 and last year the authorities were able to test all 10 to 11-year-olds, and pupils nearing 15.

One of the most encouraging aspects of the survey was the progress made by children under 11, who needed special help three years ago. Of 780 identified in 1972 as being unable to cope with the demands of a literate society unless given extra help, only 37 per cent were still in that category. Six per cent of the original 780 were now above average for their age.

NUS to start newspaper

A national student newspaper, *National Student*, will be launched next month by the National Union of Students. It will be eight pages, tabloid format, and free.

Three previous attempts at a national publication all failed: *Student*, the first, was a news magazine; *New Student* followed; and was replaced by *Magnus*, which folded two years ago.

The difficulty facing the union this time will be to convince advisers that all 100,000 copies will be read, particularly as the paper will follow a left wing editorial policy.

Most of the union's 650,000 members are not interested in student politics. But the union believes they could be made more aware of what is going on, and take a greater part in their read accounts of student activities which were not as coloured as the versions in national newspapers.

Watch This Space

NEW YEAR
NEW BOOKS
NEW IDEAS
All from the Longman Group

Look out for:
Knockouts
a fantastic new fiction series in paperback
Longman Illustrated Companion to World History
essential for every school library
Bienvenue
the preliminary stage for Longman Audio-Visual French
and
French from France
for mixed ability or lower ability groups
and many more

If you can't wait, write now to Sally Hurwitz, Longman Group Limited, Longman House, Burnt Mill, Harlow, Essex CM20 2JE.





CRAFTSMEN AT WORK: Diana Springall holds the stage at the Victoria and Albert Museum during the holidays. She was one of 11 craftsmen and women who demonstrated their skills with lace, pots, prints, paintings, gems, gold, silk and wool. They explained techniques and showed designs.

Direct grants: 51 decide to go comprehensive

At least three non-Catholic direct grant schools have decided to go comprehensive when the direct grants start being phased out later this year, according to the Direct Grant Joint Committee. They are Wellington School, Somerset; Canon Slade School, Bolton; and St Edmund's College, Liverpool.

But at least three Catholic direct grant schools have decided to go independent: St Anselm's College, Birkenhead; St Bede's College, Manchester; and St Mary's College, Liverpool.

Though the decision of one school in East Anglia is still in doubt, it now looks as if all but a few Catholic schools have chosen to join the maintained system.

At the start of last year there were 173 direct grant schools in England and Wales. Two—Dr Williams' School, Delgallan, and the Convent of the Ladies of Mary, Scarborough—subsequently announced plans to close. This leaves 52 Catholic and 119 non-Catholic schools. When the deadline for replies to the Department of Education and Science expired on 31 December, 51 schools had said that they would go comprehensive.

ILEA head to be all-in adviser

The Inner London Education Authority has created a new £3,000-a-year job to help its remaining 35 grammar schools to go comprehensive more smoothly.

Mr James Rudden, aged 63, the head of the Bishop Thomas Grant Roman Catholic comprehensive school, Stratford, becomes an advisory head teacher. Mr Rudden, a well-known advocate of comprehensive education, will work closely with ILEA inspectors.

Twenty-five years ago there was no such subject as the economics of education. Today it is taught in all universities and polytechnics. International conferences are full of economists taking the day after tomorrow to lay down principles for the primary schools and the next have switched to education permanente. Their only equals are the sociologists, but they now seem to have reached their peak and even to be on the decline. Certainly, everyone else, especially administrators and teachers, seem to be given a minor role and are obliged to dance to the social scientists' tune (or tunes), but especially the economists.

Now, we could remind ourselves that there is a respectable tradition going back at least as far as Adam Smith of economists taking an interest in education. The idea that education might for some purposes be interpreted as a productive capital investment is not new. Similarly, the notion that incentive systems based on money is not an original discovery of the Friedmann or the Institute of Economic Affairs. It too goes back to Adam Smith.

But all this tells us is that there is nothing new under the sun, least of all in economics. We are still left searching for an explanation of why economic ideas or, more to the point, economists' ideas have become so peculiarly relevant.

One answer lies within economics itself. A theory of economic development based on the assumption of homogeneous, primitive labour, and not making much sense. The quality of the labour force, especially its ability to solve problems, was clearly of economic significance. It was much of a step further to relate this to education and training.

Second, if economics is about the allocation of resources, it can deal with the scarcity problem wherever it appears—hospitals, water boards, like including schools and colleges. This is partly due to economists' excess supply looking for work (note the economic explanation!) and partly to the perfectly proper scientific procedure of generalization.

The third pressure is the desire to base public policy, of which education is a major part, on rational grounds, if at all possible. A great strength of economics lies in its theory of all kinds, but especially of rational decision making, which

Taylor inquiry into managers and governors

Greater representation of teaching and non-teaching staff on governing bodies was demanded by the Liberal Education Association and the Liberal Party education panel in their joint evidence to the Taylor Committee.

They should form one-third of the bodies and be elected by proportional representation by all the staff. And they should be in addition to the head and deputy head.

"In this way it can be ensured that significant minority opinion, or a minority professional association, will be represented."

The ILEA should nominate another third of the governors. "It is very rare indeed for there to be an issue in which the ILEA nominees and 'the rest' will be on opposite sides."

Should such an issue arise, the ultimate authority of the resolution body can be exercised by the resolution of the council.

The remaining third should include parents and, in the case of secondary schools, one or two pupils. Pupils were not to be consulted and would not inhibit discussion. "On the contrary, we feel that the capability of exercising choice and common sense as governors."

Primary school governors should include representatives of the dairy schools to which pupils are sent. Secondary school governors should include representatives of primary schools from which children come. Near by colleges, education or universities also should be represented.

The society's evidence "firmly" recommends training, perhaps with the use of appropriate handbooks. There will be consumption of energy and resources. However, that could be a small price to pay for the restoring of conflict and the enhancing of stability in what may be a period of severe social and political pressure on schools.

If the Taylor committee were to suggest radical changes for governing bodies, there would be pressure

PERSONAL COLUMN

Maurice Peston Power in purse-string jargon

is precisely what governments were searching for in the sixties.

In addition, economists have a terminology. Compare "people benefit from education of others" with "there are external economies of consumption in education". The latter has a sort of power suggesting a great science behind it; the former seems rather obvious. Similar remarks may be made about "investment in human capital".

Above all there is "the residual factor in economic growth". This simply means there is a great deal of growth that we do not understand, cannot account for, and may be attributable to the increased education of the labour force. Put in this form it invites the response, so what? But "the residual factor"—what depths of analysis we have here!

I shall return to the power which a good terminology provides on another occasion. But it is to recognize for the moment how significant it has been in education, and what difficulties the sociologists and psychologists have had in maintaining the ascendancy of their languages.

Thus, the economist became an expert in education because some he had a suitable product to offer. It was a particularly versatile one because it could meet such a wide variety of demands. It accommodated the free marketeers who wanted who were seeking a theory of planning. It provided a case for private choice which suited the supporters of the public schools and for social choice which is what those of us who favour comprehensives were after.

Almost paradoxically, the same

'Give staff more say'

ides. Should such an issue arise, the ultimate authority of the resolution body can be exercised by the resolution of the council.

The remaining third should include parents and, in the case of secondary schools, one or two pupils. Pupils were not to be consulted and would not inhibit discussion. "On the contrary, we feel that the capability of exercising choice and common sense as governors."

Primary school governors should include representatives of the dairy schools to which pupils are sent. Secondary school governors should include representatives of primary schools from which children come. Near by colleges, education or universities also should be represented.

BEAS call for more training

There was a strong need for induction and training programmes for school governors, the British Educational Administration Society said in their evidence.

One of the main complaints about governors, made both by themselves and by outsiders, was that they lacked expertise and commitment, and that they did not know what their role should be.

The society's evidence "firmly" recommends training, perhaps with the use of appropriate handbooks. There will be consumption of energy and resources. However, that could be a small price to pay for the restoring of conflict and the enhancing of stability in what may be a period of severe social and political pressure on schools.

If the Taylor committee were to suggest radical changes for governing bodies, there would be pressure

to change other parts of the educational structure, according to BEAS. The governors, for example, should become responsible for the school budgets, subject to the approval of the ILEA.

The committee of independent recommendations, even if named, is likely to have a major impact on school governance. It is likely to make recommendations taking into account broader implications for change, stress involving staff and given development.

The society is based on its evidence is based on its expressed at their last two conferences, said there was a danger from ILEA majorities governing bodies. "These are very rare, in any event, elected the community and their presence ensures the contact with local interests."

When he realized the extent of the misunderstanding—at the end of July following a parents' meeting at which strong views were expressed—he took steps to arrange a series of meetings with individual parents. He did not place much value on big meetings, he explained, but had written about 100 separate letters to parents.

The other mistake, he said, was organizational, in that he himself decided to teach in the language groups. I realized this when the language groups began to have trouble with reading.

It was not an overstatement of supervising the way the individual teachers taught, but of the organization of the three groups. "The trouble arose because the children were having to learn the staff much more than they were used to."

The team teaching, he said, was organized around three "home" or base groups to which the second-year and third-year children were assigned regardless of sex or ability. The staff, he said, were organized with closed sessions in the classroom for each group run by its home teacher in which subjects such as mathematics and language were normally covered. After playtime, the groups came into open sessions where they had the choice of various options— which might include table tennis—under the supervision of a teacher. Some children might carry on their bookwork

Before that I must point out another serious matter. The same mistake has not become important solely in terms of the economics of education. (When I worked at the DES, for example, very little of my effort was devoted to economics narrowly considered, at all.) What has happened is that the economist has become important in education. And did the world become a better place? Well, that question must wait for another day.

Thus, there was a demand to be met, and the economist met it. In any way, he had a product to sell, he said. "The result is that the economist became important in education. And did the world become a better place? Well, that question must wait for another day."

The rise of the economist in education is a by-product of his professional work, and from the point of view of the education service it may be an undesirable by-product. It is inevitable one. I wonder whether those who encourage us to consider the views on public expenditure or costs in schools, or the rate of return to investment in permanent education would have done so if they realized that this also gave a legitimate basis for an expression of opinion on comprehensive education, the role of the head, the propensity to work of academics, etc.

Many of them would have been horrified at the thought. Many are ally. An unfortunate state of affairs, but not one, I hasten to add, that I shall not be slow to tell Fred Mulley that his comprehensive legislation is right, or the Taylor Committee that a school should not have a majority of political governors. Moreover, until the editor fires me, I shall do so in this column.

Inquiry gets to fundamentals

The cross-examination of Mr Terry Ellis, the head of William Tyndale Junior school, makes it clear that the inquiry's report will deal in detail with the evolution of educational philosophies at the school. It will involve, therefore, a review of some of the most fundamental and controversial issues in current primary education.

Time and again, Mr Ellis's account of his headship has given way to lengthy exchanges with counsel on wider issues—the role of schools in society, parents' rights and expectations, the practical limits of children's freedom, and the answerability of teachers. Mr Robin Auld QC, the chairman, who has otherwise not hesitated to make plain his impatience with irrelevances, has encouraged these explorations, often joining in the questioning of Mr Ellis. He has been at pains to elicit clear and credible definitions of the issues involved and of Mr Ellis's own views.

The head was at his best at these moments, coming aphorisms with a boldness which was not nearly as evident in some of his replies to questions specifically connected with events at the school.

There was a two-day duel with Mr John Williams, representing Mrs Dolly Walker, a part-time teacher at the school whose attacks on her colleagues, Mr Ellis claims, initiated the pressures which in the end led to the inquiry. In effect it explored the working relationship between the head and his staff.

"I was adept enough at certain kinds of manipulation to ensure that what I wanted was always adopted by the majority. . . . Only certain limited decisions were made by the staff committee. Anything involving the divisional office or County Hall obviously had to be left to me. . . . I told them I was paid to run the school and no one was getting his hands on any part of my money," Mr Ellis explained. A little earlier he had denounced the "phony democracy" practised by an authoritarian head he had known.

There were traces of outrage when he discussed the behaviour of Mrs Walker. Asked why he did not issue a written rejoinder to a document she circulated, Mr Ellis replied: "Let's not pussyfoot around this. Here was a part-time teacher circulating a document against her head because she could not set her own way in the staff room. I didn't see why I should dignify her by making any sort of public reply."

The inquiry has now heard three sides of the Tyndale story: that of the ILEA, of the managers and of the head, whose colleagues' evidence now follows. Apart from those who have been seen as more or less on the sidelines—the deputy head, the infants' head and a number of parents and other local witnesses—there remains only one of the principal protagonists still to be heard—Mrs Dolly Walker.

My two mistakes, says head

Two mistakes were made by Mr Ellis when he decided to introduce a team teaching system at William Tyndale in 1974, he told the inquiry chairman last week.

The first, he said, was a miscalculation. He had accepted the assurances of the previous head that progressive methods were already being practised at the school, and he assumed that the necessary spade work had been done with the parents. Mr Laurie Buxton, the then district inspector, had also given him this impression.

In fact, the spade work had not been done at all. Mr Ellis said. "Some parents still believed their children should sit in rows and be severely punished."

When he realized the extent of the misunderstanding—at the end of July following a parents' meeting at which strong views were expressed—he took steps to arrange a series of meetings with individual parents. He did not place much value on big meetings, he explained, but had written about 100 separate letters to parents.

The other mistake, he said, was organizational, in that he himself decided to teach in the language groups. I realized this when the language groups began to have trouble with reading.

It was not an overstatement of supervising the way the individual teachers taught, but of the organization of the three groups. "The trouble arose because the children were having to learn the staff much more than they were used to."

The team teaching, he said, was organized around three "home" or base groups to which the second-year and third-year children were assigned regardless of sex or ability. The staff, he said, were organized with closed sessions in the classroom for each group run by its home teacher in which subjects such as mathematics and language were normally covered. After playtime, the groups came into open sessions where they had the choice of various options— which might include table tennis—under the supervision of a teacher. Some children might carry on their bookwork

Before that I must point out another serious matter. The same mistake has not become important solely in terms of the economics of education. (When I worked at the DES, for example, very little of my effort was devoted to economics narrowly considered, at all.) What has happened is that the economist has become important in education. And did the world become a better place? Well, that question must wait for another day."

Thus, there was a demand to be met, and the economist met it. In any way, he had a product to sell, he said. "The result is that the economist became important in education. And did the world become a better place? Well, that question must wait for another day."

The rise of the economist in education is a by-product of his professional work, and from the point of view of the education service it may be an undesirable by-product. It is inevitable one. I wonder whether those who encourage us to consider the views on public expenditure or costs in schools, or the rate of return to investment in permanent education would have done so if they realized that this also gave a legitimate basis for an expression of opinion on comprehensive education, the role of the head, the propensity to work of academics, etc.

Many of them would have been horrified at the thought. Many are ally. An unfortunate state of affairs, but not one, I hasten to add, that I shall not be slow to tell Fred Mulley that his comprehensive legislation is right, or the Taylor Committee that a school should not have a majority of political governors. Moreover, until the editor fires me, I shall do so in this column.

Mr Ellis said he encouraged children to ask questions. "There are many spheres of life where asking questions is not encouraged, and my system does not fit in with that." If people learnt to question routines and structures that did not make sense it might lead to their modification.

The chairman, Mr Auld, asked: "A good deal of our lives has to be pure routine. To what extent

London inquiry Week 10

WILLIAM TYNDALE SCHOOL

Report by Mark Jackson

in open sessions. If they had any immediate work problems, it was the task of whoever was taking the session to help them.

Mr Auld said he had some difficulty understanding where the element of cooperation lay if there was no formal plan or written guidelines for the four teachers in the team. Mr Ellis explained that the teachers had frequent discussions, under Mr Buxton's coordination, and that the system developed as it went along. Cooperation grew steadily.

The merits of the scheme, he said, were that children could relate to teachers other than those taking them in class; that teachers could benefit from each other's talents; and that each child's assessment was made by four teachers rather than one.

Mr Ellis listed various well known children's books and readers that were used by the team teaching staff. He admitted, in reply to questioning by Mr Auld, that he now realized it might have been better to keep a progress record on each child. It would have helped the members joining the staff, though the existing teachers did not need that sort of note, he insisted. "Keeping copious records may be done to the exclusion of teaching."

Many things, he said, had gone by the board because of certain pressures. Asked what they were, he said: "The school was much further behind in educational development than it should have been at that time."

Considerations of the pupils' background should not influence a decision to introduce team teaching. "I have seen it make a problem school less of a problem. The existence of problems is not an excuse for not trying."

do you think your philosophy of education equipped people to deal with that?"

Mr Ellis said it did equip people in this way, though he wished people were not so ready to accept routines that did not make sense. But I think schools can get onto very dangerous ground in this matter. If one starts from the premise that life is boring, then one should equip the child for it in the schools." He emphasized that he was not being frivolous, but pursuing the logic of the matter.

Asked by Mr Auld if his philosophy prepared children for the self-discipline required in most jobs, he said he and the other teachers always insisted that autonomy for child meant rights and responsibilities.

Mr Ellis said he encouraged children to ask questions. "There are many spheres of life where asking questions is not encouraged, and my system does not fit in with that." If people learnt to question routines and structures that did not make sense it might lead to their modification.

The chairman, Mr Auld, asked: "A good deal of our lives has to be pure routine. To what extent

Mr Ellis said he encouraged children to ask questions. "There are many spheres of life where asking questions is not encouraged, and my system does not fit in with that." If people learnt to question routines and structures that did not make sense it might lead to their modification.

The sayings of Terry Ellis

● Parents
"We should not make the mistake of believing that parents are plaster saints. . . . They only come in to the school when they want to have a go at you."

● One has to do one's best to persuade parents of the benefits of one's system, but it is difficult to change attitudes ingrained over the years. . . . I am not in the business of getting leopards to change their spots."

● A lot of damage is done by parental aspirations."

● Children
"I would not gear my school to what other people see as its job. . . . Seeing a nine-year-old in terms of what he will be like at 16 or 18 is singularly fruitless. Children have a right to exist as nine or ten-year-olds as an end in itself."

● Since attendance at school is compulsory, there are considerable obstacles in the way of giving a child any real degree of freedom. We became aware that it is not possible in the school situation as it exists."

● There is a point at which children have to be told what to do. . . . I believe in self-discipline from within. We withdraw freedom from a child if it abuses it by attacking the freedom of others."

● Discipline is a matter for consultation with the child: every child is an individual. . . . Children can be backward and have common sense. They are no more likely to misuse freedom than anyone else."

● Sending a child to a remedial class against his will is likely to make him unhappy and more backward."

● Indoctrination? There is little one can do to influence children—they spend such a relatively small proportion of their time at school. . . . Modern methods of education can create certain kinds of division because what is happening in the school regarding discipline is different from what is happening in the home. This has been producing conflict since progressive education has come in."

● We were aware that some of the children were hit by their parents. We would not have wanted to do that, even if we were allowed to. (Two days later) "If corporal punishment had been available, I might have used it on certain very limited occasions."

● Teachers
"Any teacher has a right to teach in the way he or she believes. I would as head seek to modify their views, but not to say there is a right or a wrong way to teach."

● In the phony democracy of many schools, consultation means the headmaster telling the staff what he intends to do and then allowing three minutes for discussion with no vote."

● The head is in a weighty position and can block decisions if necessary."

● Miscellaneous
"One needs objective tests. I know a child who could read one book backwards and nothing else. But I do not believe tests prove anything."

Lecturers to fight all redundancy threats

The newly-formed National Association of Teachers in Further and Higher Education pledged themselves this week to fight every threat of redundancy to members in polytechnics and colleges.

Mr Tom Driver, general secretary of the 62,000-strong trade union, said in London that the reorganization of teacher training, coupled with the general economic squeeze, was the major problem facing the association.

"NATFHE are pledged to resist redundancies across the whole field of higher education, including those threatened by the reorganization of colleges of education."

"We are going to oppose every redundancy as a matter of principle. We are going to fight against redundancy and we are going to conduct the fight locally and nationally."

The union was willing to cooperate in finding new jobs for out-of-work lecturers and viewed the generous compensation terms for redundant staff as a last resort.

NATFHE are formed from the Association of Teachers in Technical Institutions and the Association of Teachers in Colleges and Departments of Education. They are registered as a trade union but are not affiliated to the TUC although the

ATF was. A decision on affiliation will be taken at the spring conference.

Meanwhile the TUC General Council have agreed that Mr Driver can maintain links with the TUC education department and remain as an observer on TUC committees.

The new, harder line on redundancies marks an abrupt change for the former members of the ATCDE. It was under their last general secretary, the late Mr Stanley Hewitt, that the college of education lecturers negotiated the redundancy settlements and agreed to the run-down of teacher training colleges.

It appears that the teacher-trainers now want a more militant body to represent their interests as was shown by the overwhelming majority in favour of the merger and the fact that 1,000 new members were enrolled in anticipation of it. There have also been no resignations.

For the first half of this year the association will have two presidents and two vice-presidents, one of each from the former organizations. After May, Mr Jack Hendy will take over from Mr Derek Weltzel and Mr Jack Taylor as president, and Mr Francis Cammaerts will remain as vice-president.

Lost: 400 tons of teeth

Four hundred tons of teeth are extracted from British children under 15 every year. This means that over 65 per cent of 16-year-olds have full natural sets.

This was stated at the start of a national dental health action campaign which will focus throughout 1976 on the low level of dental health in the United Kingdom and on ways in which it can be improved.

"We want to make false teeth a thing of the past by changing people's attitudes. Most people,

with a little effort, can keep their teeth for life", said Mr St Ford, managing director of Colgate-Palmolive, which is backing the campaign with more than £100,000. "Well over £200m a year is spent on dental treatment."

A schools project, particularly for secondary school children, will centre on National Dental Health Week from May 17 to 25 when the results of a "make a poster" competition will be announced. Details of the competition and project kits to be used throughout the year will be sent to every school.



WOLSEY HALL

THE OXFORD CORRESPONDENCE COLLEGE

Wolsey Hall founded in 1894 offers individual instruction by qualified tutors in the comfort of your own home for London University external

DEGREES

as well as a wide range of

G.C.E. AND PROFESSIONAL COURSES

Write to the Principal, Wyndham Milligan, M.B.E., T.D., M.A., at the address below for free prospectus giving details of all courses and introducing the expert tutorial team at Wolsey Hall who will personally assist your studies.

Accredited by the Council for the Accreditation of Correspondence Colleges.

Dept. BD2

WOLSEY HALL OXFORD OX2 6PR

where is for parents—so why do so many teachers read it?

There is one theme running through every issue of where: that good home-school relations play a crucial part in education. And where sets out to help improve this important relationship by providing information, advice and analysis on all aspects of education. Not just for parents but for teachers, too, where is compact because it carries no advertising. Clear because where is not written for 'experts'. Informative because where readers want to know how to get the best out of the education service.

Don't just take our word for it. Starting with the January issue, why not read where FREE for a while and find out yourself what where has to offer? Simply complete the coupon below.

where

the education magazine for parents

Please send me, without obligation, details of how I can receive where FREE for three months starting with the January 1976 issue.

Name _____
Address _____

ACE Advisory Centre for Education,
32 Trumpington Street, Cambridge. CB2 1QV

TE 76

الرجاء ان يقرأه الآباء

North of England conference

by Stephen Cohen

How to cut the cost of HE

Free education for essential citizens such as doctors, teachers and engineers and repayable loans for others were advocated this week by Mr Charles Carter, vice-chancellor of Lancaster University, in his presidential address to the North of England education conference.

Mr Carter told the conference—whose theme is "value for money"—that further and higher education were expensive "to the point of dangerously diverting resources from the schools". At the same time they were seriously under-financed, particularly over student grants. They also offered little help for the less academically inclined.

"Great writers, artists, musicians; great scholars in sociology, Sanskrit or Sinology—these provide the standards for our civilization, and are important as great scientists, technologists or businessmen. The problem is, however, to know how much provision to make for more pedestrian levels of ability."

"Outside certain vocational fields, there is little provision of slow-stream courses for sub-degree qualifications; no doubt if we provided more, there would be plenty of young persons who would be able to attain to pursue them."

The way to close the open-ended commitment of higher education for all those qualified was to take education up to A level or ONC and then, as required for the development of skills and qualities needed by the community.

"For instance, all teacher education and all engineering education would be free."

We could provide, I hope on a generous scale, scholarships providing the full costs of education and maintenance to those beyond a certain level of attainment and extending, as at present, into postgraduate study. And we could keep the door open to others, providing they would agree that a substantial part of the cost would be borne by a loan, repayable over an agreed period of working life."

Mr Carter also suggested half-time education for the four to six year olds, optional at four and compulsory at five. "I would regard this as a sensible reform," he said.

"I do not believe that all mothers have a right to go out to work when their children are young, though some mothers, and especially those who are single parents, certainly have to do so. It is not unreasonable that some of the others should be expected to make a choice between having a job and having children to care for."

"Similarly, I am unconvinced, despite the pleas of some students, that young ladies have to go to universities simultaneously with having children. One or the other could be postponed a few years."

It might be more cost-effective to spend a little of the education budget on teaching parents how to help their children, he said. "If we devoted 5 per cent of the income of the health service to teaching ordinary citizens elementary facts about

healthy living, I believe we could greatly reduce the amount of disease to be cured. That we do not is a tribute to the professional power of those concerned with curative medicine. We must beware of a similar imbalance in education."

"Parents will inevitably contribute to, or hold back, their children's education. Therefore, it is in our interest to teach and persuade them to make their contribution both positive and as large as possible."

Expanding unorthodox teaching methods might also be more cost-effective. "The Open University has taught us how to enlarge opportunity for less cost than if we had kept to orthodox methods."

"Britain has a great tradition, admired throughout the world, in school and further education broadcasting. But we do not appear to consider how far the use of broadcasting and other national media of instruction (the press, the correspondence colleges) should properly be taken."

"Since the money comes from funds outside the education vote, it is no one's business to look at the whole range of expenditure and decide what is most economic."

"It could be the other considerable extension of programmes of the Sesame Street type or the BBC adult literacy project, or the development of deliberate education through magazines and the press, or a greater use of correspondence courses by young adults, would be cost-effective. Certainly we should try to find out if this is so."

NFER director calls for national standards test

Nationally administered tests to examine school standards were advocated by Mr Alfred Yates, director of the National Foundation for Educational Research. Parents wanted to know what was going on in schools, and teachers were beginning to accept the principle of accountability, he said.

A systematic monitoring of educational standards would put an end to acrimonious debate. "At the moment the extremists seem to have the field to themselves," Mr Yates said. "On the one hand there are those who vociferously assert that standards are declining at a rapid rate, and have been doing so since the end of that golden age when you and I enjoyed the benefits of selective secondary schools, formal teaching carried out within traditional subject boundaries, and a strict code of discipline."

"On the other, we are confidently assured that innovation is synonymous with reform, that all the changes that have been made in the curriculum in methods of teaching, and in patterns of organization in our schools are serving to rid us of the restrictive practices which have hitherto hampered the full realization of our children's capabilities. We are now marching, in mixed ability format on towards the millennium."

"There must be among the relatively silent and relatively uneasy majority those who hold to the view that some of our traditional practices are probably worth preserving, but that some of the changes that have been introduced or are being advocated are potentially beneficial."

There was a growing demand for evidence about levels of attainment in schools. "The attitude of the profession is understandably one of ambivalence. Teachers, especially, are inclined to feel threatened by this proposal. Those who are well versed in the history of education are aware of the ill effects that have resulted from the infamous practice of payment by results in the nineteenth century. My impression is that teachers in the main accept the principle of accountability, but have certain misgivings about the extent to which any monitoring exercise

might exert an adverse 'backlash' influence on the curriculum and might yield findings that are liable to misinterpretation."

"My impression, too, is that in spite of their misgivings, teachers are in increasing numbers accepting the proposals that there should be some large-scale and systematic monitoring of standards, if only on the ground that this is the lesser of the two evils. The alternative, that they should be persistently vilified on the basis of unsupported claims that standards are falling, is wholly unpalatable."

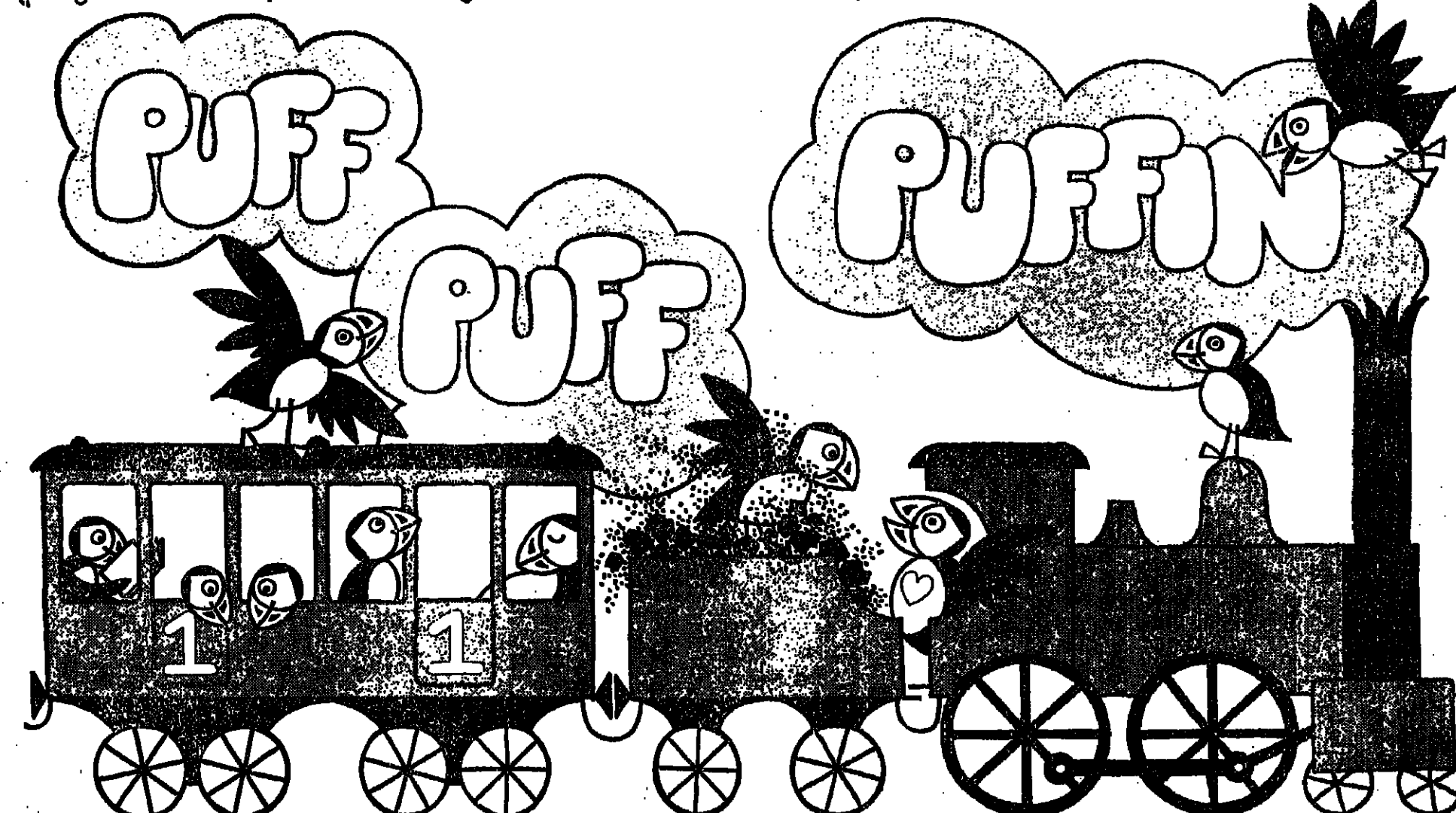
Using GCSE examination results as a yardstick would not work, he said, because of the difficulties of comparing the different methods of assessment of these different examining boards. "Furthermore, in spite of the expansion of the examining industry there is still a sizable proportion of pupils who continue to avoid all contacts with it," he said. But the more telling argument was that a public examination was made until they had been taken, and this was irresponsible.

Mr Yates questioned the accuracy of the reading survey results of 1970 and 1971 which created alarm, mislead, and the Bullock committee. The test used were old and too limited, he said. "A third objection is that there is evidence as standards have risen, that what is described in the testing trade as 'ceiling effect' has developed. When the tests were first used all the children involved could be comfortably accommodated within the range of scores that the test afforded. It now seems likely that there are some of the ablest candidates who could achieve higher scores if there were some difficult items provided for them."

Mr Yates then described the feasibility study which the NFER is carrying out for the Department of Education, and which is looking at new ways of monitoring standards in mathematics. A new system, "light sampling" had been devised. "Estimates of what would be involved suggest that testing might be envisaged on any one occasion a small fraction of the pupils in some 40 to 50 schools."

Get on board now for the PUFF PUFF PUFFIN SPECIAL

(pulling out of Platform 1, Schools Unit, Penguin Books, Harmondsworth, Middlesex)



Puffins are first class

The 1976 Schools Puff Puff Puffin Competition

Just solve ten incredibly devious and teacher-proof clues to ten great PUFF PUFF PUFFIN titles and compose for us a prize-winning slogan.

Details and clues available now, on the Competition Entry Form, from the ticket office, below.

—En route don't miss the

GREAT PUFF PUFF PUFFIN SHOWS

Some of the best exhibitions you are likely to see — with books (the Complete Puffin Collection, Kestrels and many more) — Authors, Posters, Illustrators and lots of other attractions!

Books and posters will be on sale. Everyone and anyone who loves Puffins welcome!

The PUFF PUFF PUFFIN SPECIAL will be calling at:

Newcastle-upon-Tyne, 15 & 16 Jan (Northern Counties College)
Aberdeen, 19 & 20 Jan (Aberdeen College)
Edinburgh, 26 & 27 Jan (Moray House)
Liverpool, 3 & 4 Feb (C.F. Mott College)

Nottingham, 9 & 10 Feb (Nottingham College)
Eltham, 16 & 17 Feb (Avery Hill College)
Wandsworth, 19 & 20 Feb (Whitlands College)
Barnet, 25 & 26 Feb (Trent Park College)

Twickenham, 1 & 2 March (St. Mary's College)
Bristol, 8 & 10 March (Redland College)
Exeter, 17 & 18 March (St. Luke's College)
Winchester, 22 & 23 March (King Alfred's College)

For complete information — timetable, available from the ticket office.

TICKET OFFICE OPEN NOW

Name

Address

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

1. Competition Entry Form Ticket please!
2. Penguin Books for Children and Schools 1976 Ticket please! (pass — answers to clues here!)
3. PUFF PUFF PUFFIN SPECIAL Timetable Ticket please! (arrivals and departures, addresses, dates and times)
4. Penguins In Schools: A Guide for Teachers Ticket please! (for some good curriculum ideas on the journey — get your order form now)

Hurry along please, mind the doors (bloy school whistle and chug down the nearest corridor PUFF PUFF PUFFIN!)

AMA conference

by Sue Cameron

Masters turn lawmen to stop classroom saboteurs

The Assistant Masters' Association have called on the Government to introduce a nationwide code of practice for dealing with "classroom saboteurs". They want it backed up by law.

At their conference in Cheltenham last week, AMA delegates heard how a "small minority of children are 'driving double-decker buses two abreast through the regulations and getting away with it'. Some pupils were deliberately setting out to sabotage the education system. They had to be stopped."

Mr Alan Nichol, of Sunderland, said that in the old days most classes had contained a few "characters" who were always prepared to "try it on". But disruptive pupils in schools today were not characters, they were part of a "moronic fringe" who were against education and wanted to sabotage it.

"This moronic fringe is spreading like the plague. You find three or four of them in a class and then a few weeks later, you find there are six. A few more weeks pass and there are 12."

The old-fashioned method of dealing with them was a short sharp tap with the stick. Justice was done and was seen to be done. But now the cane has been taken away in the name of progress.

Teachers today often had to find with alternative children. This meant that they were a great deal of time writing up dossiers on children's behaviour and there were long delays before a troublesome case was actually punished.

Mr Alfred Nicholson, of Humberston, said pupils who were not prepared to cooperate with their teachers should be sent out of the class and subsequently out of the school.

"It is not necessarily the child who is the saboteur. It is the child who sits at the back of the class thumping the desk while a young teacher is trying to get on."

Mr Baldwin Davies, of Shropshire, told the conference that when he had heard of the debate about more like police proceedings against real criminals than (teen) children. He said pupils only became unmanageable when teachers were too big. And teachers should never have to resort to the cane.

Mr Alex Buchanan, of Sunderland, who proposed the motion, told delegates it was not his intention to return to corporal punishment. The motion, which expressed concern about disruption in schools and called for a national code of practice, was carried overwhelmingly.

"Local authorities are having to cope in the dark about what is to be done about disruptive pupils. And at the end of the day, they realize that their statutory obligation is to provide schooling for those who don't want it."

Authorities are too busy to find their own way. There must be research, collection and collation of information by the teachers' association and then we must be assured on the partment of education."

The motion was carried overwhelmingly.

Delaying tactics on 16-plus exams

Assistant masters want the Schools Council to postpone a final decision on new 16-plus exams indefinitely.

Their verdict last week was almost unanimous. They want more feasibility studies, more research and above all more time before making up their minds on the introduction of a common examination system. It was clear from the lengthy debate at Cheltenham that many masters would be delighted to see the whole idea of a common system abandoned altogether.

Mr James Ruffell, an honorary secretary of the AMA, called for the present GCSE and CSE exams to be run alongside a common examination system. Teachers would then be free to show what they thought of the various alternatives by "voting with their feet".

Mr Ruffell's suggestion attracted widespread support from other delegates.

Mr P. G. Wake, a geography master from Ely, Cambridgeshire, said existing GCSE and CSE examinations were as near to perfection as examinations would ever be. He had taken part in common examinations and found a few pupils had scored 70 per cent. A small group earned moderately respectable marks. But a huge proportion of pupils had had under 5 per cent.

We had an enormous number of candidates scoring 0 per cent, 1 per cent or 2 per cent, he said. Many of them were simply unable to handle the type of questions set. And I seriously wonder if it is possible to formulate an exam that will be fair to the less able candidates."

Mr Wake pointed out that candidates could already get a bottom grade certificate in CSE with a mark of only 16 per cent. And all anyone needed to get 16 per cent in knowledge was a "little general facts and a bit of guesswork."

Mr Richard Penman, a classics master at Malvern college, Worcester, was even more scathing in his attack on the common examination system. The examiners had made an attempt at providing something for everyone, he said.

"This meant the translation from the set book was cut from the 300 lines demanded at O-level to 100 lines. This helped the GCSE people because it meant they only had to do one third of their usual work."

It was even better for the CSE group. After the first lesson they realised they would never be able to understand a single word and they could relax.

But as further help for the CSE group, the common translation paper had included a complete Latin-French vocabulary.

Mr Penman's claim that a common examination system would give clever children no incentive to show their abilities was echoed by Mr Eddie Wren, of London.

able to handle the type of questions set. And I seriously wonder if it is possible to formulate an exam that will be fair to the less able candidates."

Mr Wake pointed out that candidates could already get a bottom grade certificate in CSE with a mark of only 16 per cent. And all anyone needed to get 16 per cent in knowledge was a "little general facts and a bit of guesswork."

Mr Richard Penman, a classics master at Malvern college, Worcester, was even more scathing in his attack on the common examination system. The examiners had made an attempt at providing something for everyone, he said.

"This meant the translation from the set book was cut from the 300 lines demanded at O-level to 100 lines. This helped the GCSE people because it meant they only had to do one third of their usual work."

It was even better for the CSE group. After the first lesson they realised they would never be able to understand a single word and they could relax.

But as further help for the CSE group, the common translation paper had included a complete Latin-French vocabulary.

Mr Penman's claim that a common examination system would give clever children no incentive to show their abilities was echoed by Mr Eddie Wren, of London.

"Schoolchildren are lazy," he said. "They will never give more than five."

Mr Eddie Wren, of London, a 45-year-old science teacher who has done a lot of work on the subject of equality, said he believed in the equality of all. But it was time men were given full equality.

"Men who retire at 55 have a life expectancy of only two years. Yet those who retire at 60 can expect to live for another 12 years. And women retiring at 60 can look forward to 15 years life."

Mr Wren said later that the only conclusion to be drawn from the enforcement of existing pension regulations was that men were being led to early graves by the standard of having to teach after the age of 60.

than you demand from them. They need to be stretched, to be made to work to the limit of their ability and this is why we must keep separate O-level examinations for the most able."

Mr Geoffrey Scargill of Manchester felt the feasibility of a common system at 16-plus had already been established. But no one had given proper consideration to the aim of the new examination system.

There was a great danger the curriculum would be tailored to fit a common examination system, instead of examinations being made to suit the curriculum. It was vital that attention be focused on courses rather than on question papers.

Mr John Lush, of Harrogate, said that the common system would be a good one. The examination system in the United Kingdom is one of our proudest exports and it still stands up in other countries. As long as we go cautiously, the common system will provide us with a way of ensuring that British examinations are still the finest in the world."

A motion calling on the AMA to "deprecate the proposed merger of the GCSE and CSE examinations" was defeated by an overwhelming majority.

Any decision on a common system before further feasibility studies had been completed.

to live for another 12 years. And women retiring at 60 can look forward to 15 years life."

Mr Wren said later that the only conclusion to be drawn from the enforcement of existing pension regulations was that men were being led to early graves by the standard of having to teach after the age of 60.

Mr Eddie Wren, of London, a 45-year-old science teacher who has done a lot of work on the subject of equality, said he believed in the equality of all. But it was time men were given full equality.

"Men who retire at 55 have a life expectancy of only two years. Yet those who retire at 60 can expect to live for another 12 years. And women retiring at 60 can look forward to 15 years life."

Mr Wren said later that the only conclusion to be drawn from the enforcement of existing pension regulations was that men were being led to early graves by the standard of having to teach after the age of 60.

Mr Eddie Wren, of London, a 45-year-old science teacher who has done a lot of work on the subject of equality, said he believed in the equality of all. But it was time men were given full equality.

"Men who retire at 55 have a life expectancy of only two years. Yet those who retire at 60 can expect to live for another 12 years. And women retiring at 60 can look forward to 15 years life."

Equality? It's a man's world too

Men teachers are to try to use the Sex Discrimination Act to gain equal pension rights with women colleagues.

Delegates to the AMA agreed to fight for a man's right to retire at the same pension. They claimed that the present regulations which permit women to retire at 60 discriminate unfairly against men who

are forced to wait until they are 65.

Mr Eddie Wren, of London, a 45-year-old science teacher who has done a lot of work on the subject of equality, said he believed in the equality of all. But it was time men were given full equality.

"Men who retire at 55 have a life expectancy of only two years. Yet those who retire at 60 can expect to live for another 12 years. And women retiring at 60 can look forward to 15 years life."

ASE conference



Bias against girls keeps majority out of the labs

For every girl obtaining a CSE in physics there are 10 boys. At O level the ratio is four to one, according to Mrs J. Harding, from the Chelsea College Girls' and Science Education Project.

The low level of science education for girls, she said, was limiting their career prospects and making them more prone to mental disturbance.

Typical local authority figures showed that large numbers of girls did no science at all at the age of 14.

This was a waste of talent and a limitation to girls' vocational choices. Two-thirds of the opportunities in further education were in science or science-based courses. Women were the chief breadwinners in one-fifth of all families. Two-thirds of all working women were married. "We owe it to our girls to equip them for more effective employment."

Girls were much more likely to do science in single sex schools. Preferences were much more polarized in mixed schools, and the reorganization of secondary schools along these lines threatened to make matters worse.

Mrs Harding did not know why this was so. She doubted whether it was because of the differences in

spatial ability often attributed to boys and girls. The overlap was such that only 30 per cent of boys scored higher on tests of this ability. And in any case it would not explain the girls taking science in greater numbers in all-girls' schools.

There were several disadvantages for girls in secondary schools. Few women scientists were visible to them and the social expectations were that girls should follow a non-science course.

A colleague on the project, Miss Jen Redston, analysed the examination scripts of boys and girls taking Nuffield physics. There were no differences on the essay questions but in the objective tests, there were significant differences in the way boys and girls answered 13 out of 70 questions.

Just over half these differences were accounted for by girls having difficulty with questions involving graphs and diagrams. Girls were better on the straightforward recall questions.

But these differences disappeared when the coeducational schools were looked at in isolation, suggesting that the difference might be one of the approach to teaching science to girls rather than innate ability.

Guns before butter

Mr Fred Mulley, Secretary of State at the Department of Education and Science and guest at the ASE's annual dinner at the conference, said "a revolutionary change of attitudes" was needed to persuade children to specialize in mathematics and science and to seek careers in manufacturing industry.

"Instead of the whole ethos of our educational system and, indeed, our society suggesting that the target of the ambition of our boys and girls should be one of the learned professions or public service, we have got to concentrate much more

on our great talents as a nation on the brutal necessity of earning the nation's living."

"Despite all their problems, we look to present teachers to make every effort to produce the qualified and willing, to take up the places in our universities and polytechnics. It is sad that there should be so many unfilled science places."

One way they could achieve this was to encourage more girls to take up science as teachers in schools level of industry itself."

'Sinister' common curriculum

The idea of defining a "whole curriculum" was "a sinister development" that threatened the survival of subjects like school science, Dr Harry Judge, director of the Oxford University department of educational studies, said when he gave the Macmillan education lecture.

"The notion of a common, definable, standard, imposed curriculum is deeply offensive. We have

Now for scientific literacy

Science is the greatest achievement of recent times and should, therefore, occupy a far more important place in education than it does, Lord Bullock, master of St Catherine's College, Oxford, said in his presidential address to the Association for Science Education in Oxford this week.

"We are sometimes so impressed by the contribution of science in the fields of health, energy and communications that we don't take enough note of the fact that science is the greatest intellectual and cultural achievement of the last 100 and, perhaps, the last 300 years."

Lord Bullock, a historian who chaired a committee that produced *A Language for Life*, the report on reading, said: "Science should occupy a corresponding place in the education of everyone. This is not true of our education system at present."

"I do not believe the majority of young people have anything like an adequate grasp of the importance of science—only for all its practical contributions but for what it does to mind, the problems and meaning of man's life."

Even those who would not become scientists should be made aware of the central importance of science to universal understanding. Scientific literacy was important to all, not just the next generation of scientists and engineers.

But scientists, too, had to accept that their was not the only form of knowledge. "If the non-scientist can feel that in accepting the claims of science he is not detracting from but adding to his own way of looking at knowledge and understanding, then they would do so more willingly."

"The task of science education cannot be confined to the science

specialist" and a "watered down elementary version of what you get for the chap who is going on to become a scientist" would not do. Science courses as they were were too rich in information for the non-scientist. It was the concepts and the language of science that needed to be put across.

"I hope that when you give a picture of science it will be as an open ended process. I hope you will show it as something in which there is room for controversy, passion and error rather than a process of immutable laws."

It was vital for science to overcome the feeling that technology created more problems than it solved, if science was to continue to be supported and if the warnings and remonstrances of scientists were to be heeded in time. "There is too much urgency for scientists to back and say 'Let the fools find out for themselves'."

Pressure on staff from mixed ability

The Department of Education and Science should carry out a manpower study to look at the extra pressures imposed by mixed ability teaching, said Mr Colin Yardley, a London teacher.

"The DES should undertake a proper manpower study and realize that the needs of schools are not based on simple staff student ratios."

Dr Kenneth Jacks, HMI, said there was "an almost explosive growth" in mixed ability teaching. Whether this is the latest educational shift based on what is best for our children is something you have to decide for yourselves."

Neither the inspectorate nor the association wanted to persuade anyone to go for mixed ability teaching, only to help those who wanted to. He summarized the difficulties as coping with those who could not read worksheets, stretching the most able, and extra pressure on teachers, "how to remain sane, relaxed and enjoy your work and still produce the large volume of materials required."

Mr Yardley, who has recently become head of science at Thomas Tallis School, said teachers could

not lie down under the burden. They should work together in collective ways. Neglecting the needs of individuals was less likely to happen in mixed ability classes because the teacher was aware all the time of an ability mix. "The danger in streaming grouping is that the teacher assumes that they can all work at the same pace."

Mr John Summerfield, head of Science at The Knights Templar School, Baldock, said teachers should use their long holidays to produce materials. The first few years of mixed ability teaching had nearly killed him, but now they were "over the hump" each of his seven colleagues had only to write two units to supply a whole year's work for a year group.

Dr David Newbold, Oxford University department of educational studies, gave some of the initial results of what was said to be the only quantitative research on the effects of mixed ability teaching: the Banbury Project, funded by the DES.

He looked at matched groups in forms one and two at the comprehensive Banbury School who studied a common curriculum but who

were divided up into large mixed ability and streamed groups.

At the end of both years there had been little difference between the methods of organization as judged on academic tests but there had been social advantages in mixed groups. The mixed ability groups had scored higher on tests of creativity of the "What could you do with a brick?" kind. "I am not sure what they are measuring but they seem to be measuring something."

Another advantage of the mixed ability groups was that the test of verbal reasoning. There was little to suggest that the higher ability children were held back.

In the mixed ability groups children had better attitudes to school and were more satisfied. Children from streamed classes tended to mix less with children from different backgrounds or of different abilities. Children knew when they had been "labelled". "Nothing disguises from children that they have been sorted out."

It remained to be seen whether this difference would still be apparent in years 4 and 5.

More time to consider 16-plus exam plans

The Schools Council are extremely embarrassed that the report on proposals for a common examination at 16-plus which should have been sent out to schools in September is only now arriving, said Mr Rupert Booth, an HMI attached to the council.

The time to be allowed for teachers' reactions to the proposals had been extended by a month until the end of March. The council were due to decide on any recommendation to the Secretary of State in May, and the earliest possible date for the first examinations would be 1981.

On a show of hands, the ASE meeting were virtually unanimous in wanting a delay of two years or so. Speakers wanted more time to examine the conclusions of the feasibility studies and details of the proposals such as whether they would have free choice of examination boards. What was the hurry, they asked?

Mr Booth said some teachers' representatives on the Schools Council were asking for a quick decision. Pressed to say which, he said, "There are many views, both ways. The Schools Council attempts to represent these as best it can."

He urged teachers to read the reports before they made up their minds about the proposals for new examinations at 16, 17 and 18-plus.

Junior science 'crucial'

The onus is on middle school teachers to provide the foundation for a proper study of science, the conference heard in a session devoted to science to the age of 13.

Mr P. S. Coles, chief science adviser in Berkshire, said many middle school teachers fought shy of science work or did not know about the materials available. Some were even proud of their ignorance of the way scientists worked.

"Middle school teachers still need more help to do justice to the science part of the curriculum," the Nuffield 5 to 13 Science Project had been some help, but more was needed.

Dr M. M. Collis, inspector of education in Kent, said there was a wealth of suggestions in the Nuffield work. Middle school teachers were free from the pressure of examinations, but they still had to provide a good basis for later science work. This would be best provided by the twin aims of the Science 5 to 13 project: "the development of an inquiring mind" and "a scientific approach to problem solving."

The project took account of pupils' gradually increasing capacity for abstract thought and enabled children to solve problems by drawing on their own experiences. "Children's interest in their surroundings and a desire to actively learning them is a powerful aid to



But different children developed at different rates. The teacher had to be ready to deal with children who were still at the "concrete stage as well as those able to speculate and test their ideas. Children's more to be related much more to their level of development."

Mr John Lewis, senior science master at Mervyn College and chairman of the public school's Science Panel, described how making science obligatory in preparatory schools had liberated school science examination work.

The preparatory schools, he said, had adopted the first two years of the Nuffield O level science pro-

Conferences: NAS, WUS, JCLA, Guides and Scouts

Three clues to why some children fail

Educational disadvantage is not an elusive or highly specialized corner of the educational world. It involves a very sizable minority, Mr Wilfred Brennan, assistant education officer for special education in the Inner London Education Authority, told the National Association of Schoolmasters' conference in Birmingham last week.

Secondary schools were failing to help slow learners. And it was preposterous to have heated arguments about integrating handicapped children when most of them were in ordinary schools already, he said.

There was an important distinction between disadvantage and deprivation. A child was disadvantaged if he was unable to make the best use of school because of his background. But if he was not being offered the right kind of education, he was deprived.

The Schools Council project on the curricular needs of slow learners, of which he is the director and which is due to report early next year, had revealed an unfortunate tendency to label children instead of looking at their needs and taking these as the starting point for curriculum development.

Their report would suggest three classifications for children who fall at school. The first group deviated so much from normal intellectual development that an efficient education for them meant a major modification of the curriculum from start to finish. These children were not and could not be confined to special schools.

They made up 10 per cent of the school population, and it would be foolish to think that placing them in special schools was either desirable or practical. Even if places were provided for them at four times the present rate it would take 50 years to provide enough. Training the teachers would take the best part of a century. The problem properly resided and should be solved in the ordinary schools.

A second group of children needed a "corrective" education if they were to take advantage of school. They were the "real heart" and core of the disadvantaged, who often had specific difficulties, many of which were mistakenly identified as reading difficulties.

Don't be fooled by progressive red herrings, lecturer warns

The closure of direct grant schools, the growth of comprehensives and the adult literacy scheme do not represent significant progress in the British education system, Mr Douglas Holly, a lecturer at Leicester University's school of education said last weekend.

Mr Holly told delegates at the annual conference of the World University Service not to be fooled by what many people believed to be significant events in a changing world of education. Adult illiteracy was a red herring which educationists had grabbed at to divert attention from more pressing problems. "Literacy exists, but it has existed for a long time. It simply shows the failure of more than a hundred years of compulsory education to achieve even the minimum it set out to do."

The Black report, he said, was the "first step" we have had in this country for a long time. It pleases everyone and the few recommendations it made could even be harmful if they were put into effect because they would be irrelevant but time consuming to the idea.

As for direct grant schools, they had been introduced in the 1920s and it was therefore not particularly significant that they were now being closed down. And the change to comprehensive education was too often just a change of name.

"Even Labour Party members still support a form of apartheid in the education system with a separate education for the academic elite, because they believe this best serves the interests of a small minority of the working class."

They were not slow learners but were limited by the language used at home. They were often further deprived at school because too few teachers could teach reading really well and few heads were prepared to support them when they could.

There was no evidence that L.E.A.s were planning properly for teaching reading. On the contrary, good work seemed to be fortuitous and could disappear overnight if a teacher left.

A third group of children were "remedial". They had something wrong with their nervous systems. There was still a lot to learn about such disorders.

Mr Brennan said, was to be much more rigorous in defining the reason for learning difficulties. It was no good giving slow learners the same help if they fell into different groups.

Dr Eric Radford, head of education at West Midlands College, succeeded in stirring up some of his audience and mystifying others with an iconoclastic address on alternative forms of education.

He took his Aristotelian text—"It is as unfair to treat unequals equally as it is to treat equals unequally"—as a licence to range over Soviet and American systems, "socio-biology", colour television and those "diseases and uneases of our time": arson, hoodlums and isolation.

He put forward three solutions to our ills: lower the school entry age to four or even three, lower the leaving age to 15 and open a middle school wherever possible.

It is as unfair to treat unequals equally as it is to treat equals unequally. He put it in three-year-olds into infant schools. At this age, they were big enough, strong enough, socially advanced enough, and they had a right to be there. Lowering the school leaving age made this possible. Keeping children at school till 16 was anyway only keeping up with the Joneses. They wanted to leave and they should be allowed to. Industry was waiting to snap up the cheapest form of labour and early leavers could always return to school.

Middle schools, Dr Radford said made biological sense. Children could get the most intense phase of their development over with in an institution, and they could become leaders at nine and 13.

Exams confusion blurs real issues

Even the Schools Council have been overwhelmed by the volume of new proposals for examination for the over sixties. Dr C. G. Hadley, chairman of the council's modern languages committee, told the joint languages associations conference in Loughborough last week that his committee had been unable to discuss the real issues of modern language teaching because they had been snowed under by examinations.

The central difficulty, he said, was the failure to come up with different learning objectives in teaching foreign languages to children of differing abilities. Teachers were

entitled to expect a lead from the council. Proposals for a research project from a working party set up two and a half years ago had been turned down. Another proposal was now awaited.

"If something is not done, modern languages will become an elitist subject again." They might prove to be the most intractable subject for a common 16-plus examination. "We may have to be satisfied with a common system rather than a common set of papers."

This did not necessarily mean completely separate alternative papers. Oral and written work

probably left enough scope for the same examination to allow the best to shine and the least able not to be depressed. Listening, reading and comprehension were areas where different tests for children of different abilities might be used.

One teacher said this meant that assessment was not taking place in examinations but was being done by the teacher when entering candidates. Another criticized the muddle and haste involved in all the proposals. The way the new examinations were being devised was like "the parthenogenetic process by which the Conservative Party used to elect their leaders."

Commitment comes first, guides and scouts told

Belonging to the Guide or Scout movements is not simply a question of singing round camp fires or learning how to tie reef knots. Every member, from adult group leader to the youngest brownie or cub, is expected at some stage to take a solemn promise to do his duty to God, to serve the Queen and help other people, and to keep the Guide-Scout laws.

That was the message for more than 150 delegates who attended a joint conference for trainers of Guide and Scout leaders at Coventry College of Education last weekend to consider ways in which group leaders could help young people to live by the promise.

As trainers we are concerned to

give sufficient practical help to those who are working at grassroots level running a group," said Miss Jill Campbell, a member of the national executive of the Girl Guides Association and conference chairman. "We are unashamedly a religious and multifaceted organisation and we hope that what will come out of this conference will be a boost to training, geared specifically to our commitments to a promise."

The Rev H. Morton, general secretary of the British Council of Churches, told the conference that one of the problems of people in Britain was to adjust to this "time of plurality of cultures and faiths" and to come to terms with its opportunities and dilemmas.

"One reason why people are afraid today is because they feel they have lost their moorings, their commitment and faith. You are right to put the promise at the heart of your movement."

During pre-conference discussions some delegates said the scout and guide movements were in danger of becoming too tolerant. Youngsters should be made more aware that they could not join simply for friendship.

"We should look again and go on looking at that promise to see its real implications," said Mrs Janet Wood, acting programme training adviser of the Girl Guides Association.

What's so different about the New

It's the World's first wash-off ball point pen!

Yes... we've done it at last... the answer to the wash-off ball point pen. THE LINDY WASH-OFF BALL POINT! It was originally designed by a child, and is completely washable. From clothing to skin, simply by washing, no more ink stains. Overall, stained white or dirty fingers - Lindy Ball Pens have cleaned up the writing scene once and for all. The Lindy Magic Remover too! Each Lindy pen comes complete with its companion the Lindy Remover in a double pack. An instant remover that makes all ink stains and ballpoint ink disappear. Can't you remove blue fountain pen ink?

Fun for the kids too - it makes a superb secret writing set and there's hours of fun to be had.

Lindy

For full details contact: Mr. C. G. Hadley, National Association of Schoolmasters, 10, St. James's Place, London W.1. Or write to: Lindy Pen Co., 10, St. James's Place, London W.1.

GENUINE GERMAN
For nearly 20 years, Unesco Zeitung's 32 x 4-inch illustrated pages have been making a reputation for themselves in British schools. Each monthly issue contains selected articles from West Germany's press, an English glossary. Subscription £2.40 a year including postage from Berlin. Order and payment details, and specimen pages on request.

UNSERE ZEITUNG
39 Church Road, Watford WD1 3NY
Tel: Watford 36976. Fax: 0192 344 4007

Reports by Bob Doe

Waiting for Bullock

A member of the Bullock committee on reading has strongly criticized the Government for not publishing enough summaries of their report, *A Language for Life*.

Dame Muriel Stewart told primary school teachers it was disgraceful that a promise that every teacher would have a summary had not been kept. The promise was made to the National Union of Teachers' Easter conference by Mr Reg Prentice when he was Education Secretary.

Dame Muriel, speaking at the NUT's education conference in London last week, said it was hardly surprising that, when she asked L.E.A.s for their reactions to Bullock, they said they were waiting for the report to filter into the schools. She was appalled that nothing had been done when so much time, money and effort had gone into producing it.

This prompted the conference to call on the DES to remedy the shortage.

Dame Muriel, former president of the NUT and former chairman of the Schools Council, said English had never been recognised as the most important subject in the curriculum, and yet it was the basis for

success in all others. Only 14 L.E.A.s had English advisers or inspectors when the Bullock committee was first set up. The DES were also to blame because they had taken 50 years to set up a committee of inquiry.

Everyone in education must recognise the importance of language education, she said. Reading could not be taught as a separate skill, but had to be part of language development as a whole. It was a waste of time comparing standards today with those before the war. Instead, people should look to the future. Although it was wrong to say standards had fallen she thought that some of the criteria of literacy—a reading age of seven or nine, for example—were not high enough. "Think of the complex language on a social security, tax and hire purchase forms, or safety regulations in factories."

Many primary schools had good collections of reference books, but few story books. If children were not reading for pleasure by the time they left primary school, they probably would not do so for the rest of their lives. "The greatest thing we can give children is a love of books."

Pell-mell for integration

Fears were expressed during the session on special education that integration of handicapped children into ordinary schools was being done for economic reasons, not for the benefit of the pupils.

Mr William Bailey, head of a special school in Sheffield, said it was alarming that some L.E.A.s were using the word "integration" thinking they would save money. "We are bedevilled by administrators who don't know their jobs. If you hear a chief education officer saying 'I don't believe in special education', he does not know what he is talking about."

Mr Ken Reeves, head of a school for the deaf in Manchester, said there was a danger of some special education units in large comprehensive developing into "Cinderella" departments. They had to be small classes and therefore had to compete for space with other small groups such as sixth forms.

A teacher from Exeter said many children were lost in large schools after leaving the small family groups of the schools for the educationally

subnormal. It was often better for a child to be top of a group in a special school than floundering out of depth in an ordinary secondary school.

The conference agreed to urge local authorities to appoint special education liaison teachers who would advise parents, help recruit staff, liaise with social service agencies and keep in touch with individual children. The NUT recommended this in their evidence to the Warnock Committee on special education.

The NUT's advisory committee on special education expressed grave concern at the continuing shortage of teachers in special schools. Circumstances in 1973 on staffing in special schools and classes suggested there should be 1,000 extra teachers by March 1975, as well as these required because of the growth in the number of special school places. According to a union survey last September, only a third of L.E.A.s were on or above the staffing levels set by the circular. Lancashire was the worst offender with 115 teachers below this quota.

Leavers know little about world of work

Britain's failure to formulate a national strategy to link school and work has set her apart from her European colleagues, according to Mr David Logan, from the education department of the TUC.

He told the secondary school section of the conference: "Foreign colleagues are amazed. They say: 'What's the point of starting a process in the schools if you don't continue with it afterwards?'"

Young people, he said, should be encouraged to stay on longer at school. This would mean introducing maintenance allowances. "In 1975 there are still people who leave school for economic reasons."

Schools should do more to educate young people for the world of work. "By large people who leave school know very little about the world of work, about its social, legal and statistical background. But these people are becoming more and more the decision makers. Economic democracy is coming along and schools should be aware of this."

Local committees of educationalists, trade unionists and employers should ensure that the resources of industry are made available to schools.

The careers service should be expanded. Employers should stop criticizing the schools and look to their own shortcomings, such as the lack of induction courses.

Compulsory day-release should be introduced and schools should take back pupils part time; "not every boy leaves school alienated."

He deplored the decline of training. In the middle of a slump, he said, there were not enough engineering craftsmen to go round.

"At 16-plus a large number of young people leave school and go to work. They are divided into those (one in five) who go into education and training, and the rest who do not."

These had the privilege of working and paying taxes to keep their peers in some sort of higher education. The general atmosphere in education was that what really mattered was getting the education of the elite right. Other things would then fall into place.

"But it is not going to work in a democratic society. Everybody will be involved in decision-making, philosophy and economics at Oxford."

Third of leavers unemployable

Mr Jack Chambers, a member of the NUT executive, attacked employers, trade unionists and the Government for failing to help school leavers to face up to unemployment.

He told the secondary section that the TUC, the CBI, the Department of Education and the various Government training agencies were just sitting around waiting for someone else to make the initiative. They were fondly hoping that the situation would soon improve. Yet already one third of the 16-year-olds leaving school were "unemployable."

Groups like the DES and the TUC should investigate the situation and come up with some answers. One possibility would be school courses preparing pupils for unemployment.

Teachers must also do far more to help pupils to bridge the gap between school and the adult world.

If a child cannot read...

Professor Alec Ross of Lancaster University warned teachers of the dangers of getting "too trendy" by questioning the need for teaching the basic skills of reading and writing.

He told the conference's middle school session that teachers would be failing their pupils if they did not teach them these essentials. A child should be able to read better at the age of seven than at six and should continue to improve. Many chances would not be open if a child could not read.

Professor Ross, whose book on the curriculum in the middle years will be published by the Schools Council at the end of this month, spoke of the "sin of premature specialization". It was a great failing of our

'Give the Government a chance' says Peston

Teachers should support the Government's economic policy by refusing to go on strike or work to rule, said Professor Maurice Peston, professor of economics at Queen Mary College, London, and advisor to Mr Reg Prentice when he was Education Secretary.

He told the primary school section of the conference that teachers should "give the Government a chance". In return, they should insist on more money for the education service once the present economic crisis ended.

"Working to rule or to contract, engaging in strikes and sending children home are not correct responses in 1976 to expenditure cuts in line with Government policy. I am not saying the strongest possible measures should not be taken against a reactionary local authority which is cutting more than the Government requires to save money on the rates."

"I am also saying nothing about the longer term if the Government adopted permanently a policy of neglecting the education service. But I am convinced that we should help the Government now in the hope that they will then help us."

When the economic crisis ended we should spend a growing proportion of our funds on the public services, particularly on education. In nearly all fields of public expenditure the country had come nowhere near meeting needs defined at quite low standards.

Within the education sector there was still no proper service for the 16 to 19 age group. Improvements were needed in special education, old schools needed to be replaced and split site schools needed to be rebuilt on single campuses. The nursery programme was far from

'Cuckoo in the HE nest'

Lecturers in teacher training colleges which are merging with polytechnics and other colleges will have to work much harder, Mr Eric Robinson, principal of Bradford College, told the teacher training section of the conference.

Until now, teacher training had been a "cuckoo in the higher education nest", he said. It was a mistake in the university sector.

"The universities' own education departments have been regarded with the same contempt as the litter and the colleges of education as rather embarrassing poor relations."

"The BEd degrees of the universities are and have always been regarded within the universities as eccentricity, in some sense or other not real university degrees. They have been the subject of countless special rules and procedures."

Polytechnics and further education colleges had their degrees approved by the Council for National Academic Awards, and BEd degrees had other teaching courses were treated on exactly the same basis as courses for other degrees.

"The importance of this simple fact cannot be overstated. It is crucial to the emancipation of teacher education."

"We now have several years of substantial experience of CNA A operation in teacher education on the basis of which we can now

complete and class sizes need to be much smaller.

"A couple of years ago an idea was made to convince people that we were close to exhausting educational funds. This is sheer nonsense. I know about the money. They are enormously important, they do not come anywhere near offsetting the growth regularly from the late seventies onwards. The rate of growth of education is absolutely or compared to national income."

No feared, however, that the Government would take the opportunity to cut down on expenditure on the assumption that the country was in a state of emergency. The output to the public in general and education in particular.

It was this that teachers had guard against. They should see the present education cut for the sake of economic recovery but not on the understanding that once the crisis was over the education could be expanded.

When the economic crisis improved individuals would be prepared to cut down on personal spending. This was the way of enabling the public sector to grow relative to general economic growth.

"If we want more and better education and health and if we wish a new way of understanding the differentiation of individual organs. It would be much harder to understand the development of different kinds of cells in different organs if it were necessary to suppose that bits and pieces of individual chromosomes were being physically lost."

And now there is experimental evidence hinting at the way in which unnecessary genes are masked. Protein molecules called histones appear to be the way. So there are some means of un-

category make assertions at the BEd arrangements made many, indeed most, universities. "The new further education CNA A affiliations of teacher training are making demands of a much higher standard."

He said that the teacher training section of the conference had been a "cuckoo in the higher education nest", he said. It was a mistake in the university sector.

"The universities' own education departments have been regarded with the same contempt as the litter and the colleges of education as rather embarrassing poor relations."

"The BEd degrees of the universities are and have always been regarded within the universities as eccentricity, in some sense or other not real university degrees. They have been the subject of countless special rules and procedures."

Polytechnics and further education colleges had their degrees approved by the Council for National Academic Awards, and BEd degrees had other teaching courses were treated on exactly the same basis as courses for other degrees.

"The importance of this simple fact cannot be overstated. It is crucial to the emancipation of teacher education."

"We now have several years of substantial experience of CNA A operation in teacher education on the basis of which we can now

COURSES

STUDY AT HOME

NEC offers you a unique tutorial system—personal tuition from highly qualified teachers, without correspondence notes—enabling you to study at home for most of the Degrees and Diplomas of the University of London awarded to private external candidates.

For full details write to: Pat Gouldstone, Room A1, National Extension College, 131 Hill Rd., Cambridge, CB2 1PD.

THE COLLEGE THAT'S DIFFERENT!



Elvis or Einstein to order?

The notion that each cell of the body contains in principle all the information needed to guide the development of an entire individual? The classic experiments in this field are those of Dr John B. Gurdon, now at the MRC laboratory for molecular biology at Cambridge. More than a decade ago, he transplanted the nucleus from a body cell of the South African clawed toad (which is not a toad but a frog called *Xenopus laevis*) into a fertilized egg from which the normal nucleus had been removed.

Several of the eggs produced in this way developed into tadpoles, showing that the chromosomes of quite ordinary cells do indeed contain enough information to specify the development of a complete individual.

A similar technique has now been developed by a group of Swiss biologists (Science, December 26) working in Basel. They used eggs of *Xenopus* in which the nucleus had been killed by radiation, and transplanted into them nuclei taken from white blood cells of adult frogs. As in Dr Gurdon's experiments, they found that several of the transplanted cells developed much as normally fertilized cells will do.

What all this shows is that it is indeed possible for the normally ineffective genes in the tadpole's white blood cells to be unmasked, and, in the process, to provide a basis for the development of apparently normal embryos.

The result is that there is now likely to be a resurgence of interest in this controversial field of investigation.

Why controversial? Dr Gurdon's experiments are the tadpole's, in the past few years, people have made gloomy speculations about the possibility of producing clones of individuals, all of them with predetermined and identical genetic constitutions. If, for example, it were ever thought necessary to produce a thousand Albert Einsteins or Elvis Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

masking the hidden genes in the ordinary cells of the body, using elements of the development of an entire individual? The classic experiments in this field are those of Dr John B. Gurdon, now at the MRC laboratory for molecular biology at Cambridge. More than a decade ago, he transplanted the nucleus from a body cell of the South African clawed toad (which is not a toad but a frog called *Xenopus laevis*) into a fertilized egg from which the normal nucleus had been removed.

Several of the eggs produced in this way developed into tadpoles, showing that the chromosomes of quite ordinary cells do indeed contain enough information to specify the development of a complete individual.

A similar technique has now been developed by a group of Swiss biologists (Science, December 26) working in Basel. They used eggs of *Xenopus* in which the nucleus had been killed by radiation, and transplanted into them nuclei taken from white blood cells of adult frogs. As in Dr Gurdon's experiments, they found that several of the transplanted cells developed much as normally fertilized cells will do.

What all this shows is that it is indeed possible for the normally ineffective genes in the tadpole's white blood cells to be unmasked, and, in the process, to provide a basis for the development of apparently normal embryos.

The result is that there is now likely to be a resurgence of interest in this controversial field of investigation.

Why controversial? Dr Gurdon's experiments are the tadpole's, in the past few years, people have made gloomy speculations about the possibility of producing clones of individuals, all of them with predetermined and identical genetic constitutions. If, for example, it were ever thought necessary to produce a thousand Albert Einsteins or Elvis Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

I have never been much impressed with this wayward speculation, chiefly because the experiments that have been carried out with *Xenopus* and *Elvis* Presleys, the argument goes, is how it would be done.

Science diary

by John Maddox

Meteorite gives evidence of an old and unknown element

There is now evidence that at its beginning more than 4,500 million years ago, the solar system included many more than the 92 elements which now make up the Periodic Table. It has come from a heroic analysis of a peculiar mineral which has been extracted from the Allende meteorite by Professor Edward Anders and his colleagues, most of them at the University of Chicago.

Briefly, they conclude that the meteorite must have been formed from the solar nebula which also produced the sun, the planets and the other debris in the solar system at a time when there were significant amounts of an element whose atomic number was either 113, 114 or 115—a good many steps above uranium (with atomic number 92), the most complicated of the elements now leading a stable existence on the surface of the earth.

The clue to the previous existence of this super-heavy element is to be found in the isotopic composition of the gases embedded in the Allende meteorite (and some others), and in particular in the isotopic composition of the xenon which they contain. Xenon is of course the heaviest of the noble gases with the exception of radioactive radon, and has a great many isotopes.

For several years it has been known that the proportions of the different isotopes of xenon found in different meteorites can differ from the proportions of the same isotopes found in the atmosphere of the earth. Since xenon is known to be formed by the fission of heavy nuclei such as those of uranium or plutonium, it has been tempting to think that the xenon anomalies in the meteorites can best be explained by supposing that a heavy element was originally incorporated in the meteorite and has since been broken up by fission and has disappeared.

But which heavy element? That is what Professor Anders and his colleagues have done to show that most of the problems with the xenon isotopes in the Allende meteorite are associated with small grains of a mineral which consists of roughly

equal parts of iron and chromium sulphides. Most of their work has been done with less than 10 milligrams of this material separated microscopically from the meteorite. For one thing, it turns out that this material—called "mineral Q"—contains disproportionately large amounts of xenon. Second, the isotopes of xenon occur in proportions which are uniformly peculiar and which are consistent with the notion that they have mostly been produced by the fission of some heavy nucleus. Indeed, in what must be one of the outstanding triumphs of modern science, it has been possible to show that mineral Q also contains unexpectedly large quantities of the other elements that would normally have been produced in fission.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on.

So which of the hypothetical heavy elements, lying above uranium in the Periodic Table, is likely to have been responsible? Professor Anders and his colleagues fall back on the kind of argument that chemistry teachers have used for donkeys' years in telling students what the Periodic Table is all about. First, it is possible to lay out the superheavy elements as a simple continuation of the Periodic Table, and then to make guesses as to which of them would have condensed from the solar nebula at different temperatures and which would have an affinity for sulphur, and so on. Second, it is possible to make a list of the elements which would be formed by the fission of the various isotopes of uranium and plutonium, and

United States

Union aid for White House hopeful

from Michael Binyon

WASHINGTON

For the first time in its history the National Educational Association, the largest teaching union in America, is to back one of the Presidential candidates with manpower and money.

The association, with 1,700,000 members throughout all levels of education, is certain to pick one of the 11 Democratic candidates who have now entered the race, and its endorsement could make a considerable difference to the man's chances.

The association, the second largest trade union in the country, is setting up a political action council and hopes to raise about \$1,500,000 which will be added to the \$4,500,000 it already has at its disposal for political use.

Teachers as a group are fairly evenly divided in their loyalties between Democrats and Republicans, but those in higher education tend overwhelmingly to be Democrats.

The association itself is solidly Democratic, and has spoken out vigorously recently against President Ford's educational policies.

Curiously, the one educational issue that will stir some of the greatest passions—bussing—is being played down by the association, which has always supported bussing but has been careful not to be too outspoken.

Instead, the NEA will concentrate on securing collective bargaining rights, raising teachers' pay and trying to get the Federal Government to pay a higher share of local education budgets.

All the main teaching unions are on the side of the Democrats, but they may not all pick the same man out of the plethora of candidates.



Dr Joseph Duffey, president of the American Association of University Professors, a bitter rival to the NEA for campus membership, is an active and influential member of the Democratic Party. Himself a former candidate for the Senate in Connecticut, he has recently been a central figure at a special conference the party held to discuss the main issues of the coming election, and is chairman of the party committee drafting policy on education.

However, Dr Duffey did not think the AAUP would specifically endorse any one person this year.

The third teachers' union, the American Federation of Teachers, is affiliated to the American Federation of Labour (roughly equivalent to the British TUC), and its political activity is channelled through this body. Nearly all the labour unions back the Democratic Party.

Sweden

Adult learner total hits record high

STOCKHOLM

from Mike Duckenfield

A record 2,468,000 Swedes—equivalent to five out of every 11 people between the ages of 20 and 65—enrolled for adult education courses run by the 10 educational associations during the last academic year, according to the Central Statistics Bureau.

Even allowing for those who took part in more than one course, the number of participants marked a 12.3 per cent increase on the previous year's figure, and the number of teaching hours rose 14.1 per cent. The increasing popularity of the associations' study circles, as the courses are called, has now continued unabated for the last 14 years.

In 1960-61, the then 13 associations gave 8.8m teaching hours to only 800,000 students. In the following seven years the hours doubled, and the latest figures show that, although the number of associations has decreased due to amalgamations, the number of teaching hours has doubled yet again during the last seven years to reach the total of 7.4m.

Uganda

Import curbs slapped on textbooks

by Ronald Watts

The importation of all textbooks has been banned until further notice due to the shortage of foreign currency. Nearly all Ugandan textbooks are produced either in Kenya or overseas and the ban applies in both cases.

The Kenya shilling, which technically is at par with the Uganda shilling, is now only available on the black market at a huge premium. Recent notes have been such that a book priced in Kenya at 28 sh (about £2) would cost a Ugandan 100 sh on the black market.

The cutback in education is shown particularly vividly in the recurrent expenditure estimates for the current financial year. The allocation for education during 1975/76 is 228m sh compared with an actual expenditure for 1973/74 of 355m sh: this despite the fact that inflation is raging.

Defence, on the other hand, has nearly doubled its allocation from the 236m sh approved for 1974/75 to 439m sh for 1975/76.

The continued emphasis being given to military expenditure is revealed in the capital expenditure estimates. Defence spending, which already takes 50 per cent of total Government expenditure, is to be downed to 280m sh while schools are being cut from 57m sh to 33m sh.

Italy

New drug measures help young users

from Dalbert Hallenstein

VERONA

A new law redefining all previous legislation on the use of drugs in Italy has finally been passed after almost two years of parliamentary debate.

The new legislation will punish large-scale drug pushers with prison sentences of up to 24 years, together with maximum fines of £43,000. Those found in the possession of small amounts of drugs will no longer be charged with a criminal offence but will be expected to undergo treatment. They must also reveal the names of those from whom they bought their drug supplies.

In the past most police action has been directed against individual drug users, and it is estimated that almost 20 per cent of those held in Milan prisons last year were young people on drug charges. Only a tiny fraction of these were prosecuted.

Thousands of young drug users and addicts are now being released from prison under the new measures. But through the new measures for a vast network of anti-drug treatment centres, so far very few have been set up.

France

Training plan progress, despite caution on both sides

by John Ardagh

Disagreement between unions and employers over the function of adult education is casting shadows over France's otherwise successful vocational training scheme.

Under a law in force since early 1972, each firm must spend a fixed sum on this training. But management has the last word on how the money should be used and who should benefit, and in some cases unions have complained of abuses—for instance, too many sabbaticals for executives to go on language courses, or too many technical classes for shop-floor workers.

Unions also want training to be in the interests of individual workers, while employers want it geared towards productivity. The law gives every employee the right to a week's training a year, and a firm with a staff of 10 or more to spend on this a sum equal to a percentage of its wage bill (set at present at 1 per cent, and due to rise to 2 per cent).

A firm failing to do this must pay the amount in extra taxes. Most firms have complied with the law sensibly—50 per cent have opted to pay for training their staff rather than merely be taxed—and most employers have welcomed the scheme despite its cost, seeing the longer-term advantages.

Some firms may have cheated. There are stories of directors combining a skiing holiday in Austria with a few German lessons there, and then writing the whole cost against the firm's "1 per cent". And a Paris newspaper sent its reporters to London for a month "to learn

this field has been the most remarkable during the last 14 years growth. In 1960 only about 100,000 people studied languages, while one association (the Folk University) now offers about 750 courses in Stockholm alone—a city about the same size as Glasgow. Of these courses slightly more than half are in English.

Another area of expansion is that of courses geared to levels in the comprehensive and upper secondary school curricula. These circles, which now account for 37 per cent of the total, receive extra subsidies mainly to study English, Swedish, mathematics and the social sciences. Last year saw a 23 per cent increase in numbers enrolled for such courses.

A similar increase was also recorded for circles taking courses geared to university level studies. However, last year these still only accounted for slightly less than 10 per cent of the total number of circles. Unlike lower level studies, the most popular subjects (religion, philosophy and psychology) were not vocationally oriented.

In fact, the racket of foreign jaunts became so widespread that the Government stepped in, and today any training trip abroad must have prior approval.

The unions also began to protest, demanding that workers should get a better share of the cake. They seem to have won their point. Whereas a business in a field such as banking or advertising inevitably devotes its training to white-collar staff, manufacturing companies are now doing far more for blue-collar workers.

One example is a large textile firm near Lille which has grouped together with some other local firms to set up residential courses. So far, 130 of the firm's 200 foremen have been sent on six-week courses; they spend a week away from the firm each month, studying management techniques and industrial psychology.

Some 1.5m employees each year are now receiving part-time training under the new scheme.

Some union leaders are enthusiastic about the new scheme, and see it as a way of breaking through the barriers and hierarchic rigidities that have always bedevilled French work life.

More Leftish unions are more critical. The militant CPD (non-Communist) regards that a firm's works committee has no more than a consultative role over training; it wants workers to select the training they want, and to have the powers over running the scheme. Its management is flatly opposed to this, on the grounds of efficiency.

Soviet Union

'Lectures more efficient'

by Kenneth Shaw

Lecture-type lessons for sixth-formers, more efficient use of highly skilled teachers, and relegation of unskilled staff to laboratory work, marking exercise books and organising out-of-school activities are called for in a new report on the social pedagogical problems of the teaching profession.

The authors, V. N. Turchenko and L. G. Borisova, argue that traditional small-group teaching of senior pupils in secondary schools should be replaced by lectures in which the most highly skilled and qualified teachers address 150-200 students. They say that teaching productivity would be significantly improved if the pupils better prepared by lectures.

In 1973 the country employed more than 3,000,000 teachers. Comparing this number with the 753,000 doctors, 471,000 agronomists and vets, 3,170,000 graduate engineers and 1,108,500 scientists in the coun-

try, the report says that unless teaching efficiency is greatly improved the profession, despite this massive investment, will not solve its imminent problems.

Arguing for an increased emphasis on specialist teaching, the report suggests that the newly appointed teachers of out-of-class activities in Soviet schools, who have the status of deputy school directors, have shirked little.

The task of pastoral care and arranging extra-curricular pastimes should revert to the classroom teachers. Until they do, it is added, these organisations will be nothing more than "generals without an army".

Educational efficiency experts estimate that up to 50 per cent of teaching time in primary and secondary schools is lost because of teachers' ignorance of rational organisation of lessons. Using "efficiency coefficients" they claim that even the best teachers lose 30 per cent of teaching time.

LETTERS

Rights of minorities—or wrongs?

Sir,—Salom alokum! Ifikhar Ahmad and the Muslim Welfare Association (Letters, December 19) have the remedies in their own hands in this democratic state.

Mullahs, as ministers of religion, have the right to enter maintained schools in order to give religious instruction to pupils of their faith; furthermore, the 1944 Education Act's "withdrawal" clause on religious grounds still stands.

Muslims, as far as schools are concerned, can follow the Church of England, the Non-conformists and the Roman Catholics and achieve DES agreement to the establishment of Muslim voluntary aided schools (subject to Muslim community providing their share of finance to meet capital expenditure and revenue expenses). In the articles of government of such a school, under the heading "Conduct of the school", could appear the clause "The religious observances and instruction in the school shall (subject to the provisions of the Act) be in accordance with the practices, rites and doctrines of Islam". Such schools could also be single-sex in character.

Peace on earth to men of goodwill.
B. J. M. LAWN,
Catholic Teacher's Federation of England and Wales.

Sir—There are a number of steps religious minority groups can take to assist in the retention of identity, but these steps must be initiated by the denominational group itself.

Denominational assemblies are possible, and, by arrangement, religious instruction can be set up during the time that others receive their religious instruction. Where religious law requires a specific diet, the problems can be overcome by vegetarian meals or sandwiches.

Religious identity rests on the religious community as a whole, not on the shoulders of the DES or I.E.A.s, who, without doubt, do their best to meet some of the problems. In the first instance, it is home environment which forms the firm and lasting foundation of religious life. It is here that character and personality development are shaped, and parents cannot escape their responsibility to instil in their children the religious community will help to strengthen this foundation.

To assist the home, extra educational opportunities must be made



"I still think I prefer the old hand ball..."

available outside normal school hours to provide language teaching, history and culture. Finally, there is the denominational school to preserve a religious identity.
B. KOSCHLAND,
75 Chatsworth Road,
London, NW2.

Sir—As a member of Bradford Community Relations Council, I feel sure many of your readers were irritated by the pre-emptory tone of Mr Ifikhar Ahmad's letter on the education of Muslim children in this country.

Mr Ahmad is very free with the word "must" but I am not convinced that "immigrant children"—a term he does not define—"must be taught in their own languages" or that subjects such as "Islamic history and culture" are subjects that "must become part and parcel of the school curriculum" (for everybody?).

Nor do I see why Muslim girls at secondary level must be educated separately, if Mr Ahmad

means that non-Muslim girls should be excluded from the schools he desires, as well as boys.

As for his other demands, the Jewish, East European and other communities in Britain make their own provision, without fuss, for the education of their children in their cultural heritages. They do not rely for everything on the I.E.A.s.

Most Muslims have come to Britain from Pakistan; and the Christian and other minorities in that country might well wonder at Mr Ahmad's complaints and envy the status and privileges enjoyed here by Muslims. I have not heard that mosques have been burnt down in Britain, or that religious leaders have whipped up frenzy against Muslims, culminating in wholesale looting and murder. Yet this was what happened in 1974 to the persecuted Ahmadiyya community in Pakistan, when that religious group was stripped of many civil and military appointments and reduced to second-class status.

It is fine to speak of the problems of these children who frequently come from difficult home backgrounds; it is another thing to almost neglect the plight of young teachers faced with unruly and difficult children in a normal classroom. It is further important to note that the children who wish to learn and benefit from education are frequently pushed back and in some cases forced to join the disruptive element in the classroom, merely to

Too many immigrants held back by language

Sir—Mr Lee in his letter (November 23) commenting on an article in *English as a Second Language* (October 31) says that in discussing the need for language training we make no distinction between ethnic minorities for whom English is a second language and the West Indian immigrant whose first language is English. We are well aware of this and everything we wrote about is for second language speakers.

He also questions the broad heading under which most of the courses are organized and suggests that language acquisition must take account of the social and psychological dimensions of the language. We certainly agree with Mr Lee that every aspect of the language is culturally loaded and that it is central to the teaching of communication competence that a learner should not acquire the forms of the language—the rules which govern its structure—but should acquire the rules of how and when he can most effectively use the language in any social interaction. It is unfortunate that this point was obviously not made sufficiently clear in our article.

There is no question of our wishing to project a stereotype image of the immigrant worker as a poor communicator (which we agree is often encouraged), but lack of English is a real disadvantage which can only lead to people being underestimated or passed over. Our own experience in the South-East

suggests that about 25 per cent of people of Asian origin need basic elementary language training of the type described and in other areas of the country this figure is much higher. For example, in West Yorkshire about 60 per cent to 65 per cent. These figures are corroborated by recent independent sources.

There is also the need for intermediate courses to provide improved opportunities and in the South-East we estimate some 40 per cent of the immigrant population need such courses. We would welcome a visit from Mr Lee for him to judge for himself.

TOM JUPP,
CELEA ROBERTS,
National Centre for Industrial Language Training,
Pathway Centre,
Recreation Road,
Southall, Middlesex.

Letters for publication should arrive by Tuesday morning at the latest. They should be as short as possible and should be written on one side of the paper only. The editor reserves the right to cut or amend them if necessary.

Jobs for the boys leave others out of work

Sir—There is yet another point to be made in the letter (December 19) by Clive Davidson's letter (December 19) about the NUT and the proliferation of teaching posts with part-time responsibility for administration and teaching to beginners in teaching? After all the salary involved would sustain two new comers. And is not the same administrative situation mirrored in

colleges of education (and maybe elsewhere) where the proportion of principal lecturers must now be far too large for the restricted function of these institutions?

With the prospect of further teacher unemployment looming large I am surprised that the NUT and other organizations caring for beginners in teaching have not been more vocal

in this area. Maybe they are content to see teacher unemployment and large classes as the price for cosy, often irrelevant and some times overlapping administration.

DAVID C. BETTS,
Senior lecturer in geography,
Whiteland College,
West Hill, London.

A visitor's advice: join the fray and rout the reactionaries

Sir—Probably nothing is more rude or brash than for a visitor to offer unsolicited advice to his host. But this American is deeply concerned, and I hope you will excuse this attempt to urge you to action.

I came to England for a year in 1964 to study the existing innovations that are occurring in your educational institutions, and there has been much of worth to examine. My concern is based on my belief that you may retreat from some of your recent progress due to the vitriolic attacks on the schools that seem to be all around us.

Reasoned criticism, of course, is healthy and desirable; however, thoroughly unreasonable negative attacks can be highly destructive. I sense this sort of criticism exists in some of our media reports in much of the *Black Papers* and in recent books such as Rhodes Boyson's tirade, *The Crisis in Education*.

During the 1950s very similar assaults on the schools were waged in the United States. Indeed, it almost seems as though Bodor, Ricketts, Flesch, Koerner, the Council for Basic Education and so on are active again under different names. Many American educators and friends of our schools were complacent and simply ignored these critics. Some of us were deliberately quiet because we did not want to cause undue attention to the reactionaries. We were wrong. The blast did have a negative effect on our schools.

This leads to the advice. Educators, respond to these critics. Point out their inconsistencies. For example, Boyson wants higher standards of literacy, a "return" to higher levels of "general culture" and personal participation, and an improved calibre of teachers; but at the same time he wants authoritarian controls, restriction of the arts in the curriculum, less academic preparation and more pedagogy for teachers, a tightly structured national curriculum with more national examinations and inspectors, fewer people attending schools and higher education, and weakened organizations that now stimulate participation for teachers, parents and students.

Counter the faulty generalizations and misuse of research with solid, balanced evidence. That is, again, turning to Boyson, it is easy to refute such assertions as the larger the class the greater the learning, the less equipment in infant schools the greater the academic achievement, fewer candidates are applying for teaching vacancies, "chalk and talk" is the best technique for teaching and learning and so on.

Challenge the basic underlying assumption of these critics regarding the mean, lazy, anti-intellectual and irresponsible character of man. In short don't be apologetic about this reactionary cant. Join the fray. If you don't, I fear some of your recent gains will be lost for at least some of your pupils.

WILLIAM T. LOWE,
Executive Director,
Dept. of Educational Studies,
Ithaca University.

As former chief psychologist of Hampshire I am not surprised when many teachers throw up their hands in despair at some of the views expressed by psychologists who have either forgotten or who are unaware of the problems faced by them in the classroom.

It is fine to speak of the problems of these children who frequently come from difficult home backgrounds; it is another thing to almost neglect the plight of young teachers faced with unruly and difficult children in a normal classroom. It is further important to note that the children who wish to learn and benefit from education are frequently pushed back and in some cases forced to join the disruptive element in the classroom, merely to

Questions of conduct

Sir—Jeffery J. Smith (December 26) joins the NUT knackers who seem to have been having a field day recently. There were two other letters on December 12. Is this another TES campaign?

I think Mr Smith cannot be a member of the union or he would know that all professional conduct cases are dealt with by a properly elected professional conduct committee from which there is an appeal procedure.

On the matter of a general teaching council the NUT position is well known. For as long as I can remember a union have been in favour of such a council, on the lines of the General Medical Council on which doctors have a majority. The most recent government proposal some years ago was rejected because teachers were to have been in a minority.

Until the formation of such a council solely Mr Smith will concede the right of the members of the NUT to make such rules of membership as they see fit. If the proposed code of conduct is approved by the members at the conference next Easter what right has he to say the NUT cannot implement it?

B. D. MCLEAN,
1 The Greenway,
Rickmansworth, Hertfordshire.

Anonymity must be on the menu

Sir—At the risk of irritating Peter Heywood (December 12) a degree more by prolonging this discussion, may I say how much I deplore the way in which he derides the humane instinct of those who seek to maintain anonymity for the children receiving free meals.

His alternative takes no account of the problems involved in operating a free meals scheme, which must depend on some form of means-testing. Inevitably, and for reasons well-known, our inability to handle this skillfully, leads to a number of children not receiving the free meals to which they are entitled.

In our straitened economic circumstances, the number of children nutritionally at risk is rising; and the onus is upon education authorities and social services to take energetic and tactful measures to deal with this. Mr Heywood's approach will have the effect of exposing the sensibilities of children whose parents are unemployed or otherwise in difficulties; to yet more abusive experiences.

The need is for low-key propaganda, combined with vigilance in the schools. A discreet and unfurling handling of the scheme will do more good than any campaign of the type proposed by Mr Heywood.
B. T. WOOLSEY,
22 Westway,
Coatbridge, Nottingham.

1976 12 15

COURSES



LOSEHILL HALL
PEAK NATIONAL PARK
STUDY CENTRE

Schools Courses in 1976

Peak District Studies for Schools: courses in geography and biology applied to topics and problems within the National Park.

Peak District Studies for Teachers: an active thought-provoking workshop approach for practising teachers who use the Peak District or similar areas for field studies in the environmental sciences.

Man, Land and Leisure in the Peak Park: three day-release teacher workshops.

Outdoor Studies Leadership in the Peak Park: a weekend course for teachers and student teachers seeking guidance on the planning, management and safety factors involved in visits to areas such as the Peak District.

LOSEHILL Hall is the first residential centre to be established by a National Park Authority in Britain, and it has been provided by the Peak Park Joint Planning Board assisted by the Countryside Commission. It aims to give an awareness of the principles and problems which raise important issues in National Parks, especially the Peak District, and in the environment generally.

Facilities for teaching comprise a purpose-built versatile teaching area which can be quickly and easily divided into smaller units. The range of audio-visual equipment includes a video-tape recorder and portable television camera, a large slide library and a dark room. The library has a wide range of books related to all aspects of conservation. A shop sells everyday articles, including pens, notebooks and publications.

For details of these and other courses write to Peter Townsend, The Principal, Losehill Hall, Peak National Park Study Centre, Castleton, Derbyshire S20 2WB.

HUMANITIES CURRICULUM PROJECT National Training Programme

The next training course will be held at
THE UNIVERSITY OF EAST ANGLIA
NORWICH APRIL 7-12, 1976

MAN: A COURSE OF STUDY

MAN: A COURSE OF STUDY is a social science course designed under the supervision of Jerome Bruner and reflecting his educational ideas. It is now being used in some seventy British schools (at top junior, middle school and lower secondary levels). It is available only to schools where teachers have participated in the training programme.

THE TRAINING PROGRAMME for Man: A Course of Study, is coordinated by a National Committee and administered by the Centre for Applied Research in Education at the University of East Anglia, on behalf of Curriculum Development Associates of Washington, DC.

THE NEXT TRAINING WORKSHOP will be held at Chorley Adult Education College, Chorley, Lancashire, from April 20-25, 1976. It will be organized and staffed by members of the National Training Programme.

FURTHER DETAILS and booking forms from Jean Ruddock, Centre for Applied Research in Education, University of East Anglia, Norwich NR4 7TJ.

EXPERT HOME TUITION FOR

G.C.E.

and professional examinations (Accountancy, Banking, Civil Service, Law, Local Government, Marketing, Secretarial, Teachers' Recruitment Courses)

Our exclusive methods of Home Study have brought over 275,000 examination successes, many first places. As every course is complete in itself no textbooks are required. FREE 100 PAGE BOOK

Send now for a free copy of "Your Career", packed with vital facts on a successful career

THE RITA WILSON COLLEGE
DEPT. 104 TUITION HOUSE

LONDON SW19 4NS. Tel. 01-442 2272
24-hour Recording Service 01-444 1182
(transpenn only)

Accredited by the Council for the Accreditation of Correspondence Colleges

SUMMER COURSE IN THE SOVIET UNION FOR BRITISH TEACHERS OF RUSSIAN 1976

It is expected that a summer course will be held for British teachers of Russian in Leningrad or Moscow. Participants will contribute £100 towards the cost of the tuition fee. No charge for accommodation, tuition or subsistence.

Places and further information: Higher Education and Science Department, The British Council, 10 Spring Gardens, London SW1A 2BN. Other teachers in England, Wales and Northern Ireland: External Relations Division (Ref. ERI/10/00), Department of Education and Science, Whitehall, London SW1 2PP.

Other teachers in Scotland: Scottish Education Department (Room 4/41), New St. Andrew's House, 31 James Street, Edinburgh EH1 1JY. Closing date for applications: 9 March 1976.

Sport

London staffs turn against boxing

by Stanley Levenson

Schools boxing in London, lacking a solid foundation of interested teachers, has collapsed as an organized unit, but the Schools Amateur Boxing Association have salvaged most of the young boxers. With London no longer functioning, the various parts have been taken under the wings of the surrounding counties of Essex, Kent, Middlesex and Surrey. This means that most of the boys can take part in the preliminary contests leading up to the national finals in Blackpool on March 27.

Mr W. H. Young, secretary of the SABA, puts some of the blame for the London collapse on the "anti-boxing" physical education teachers and colleges of education.

This form of official displeasure, says Mr Young, has made it more difficult to get teachers interested in boxing at a time when, in his opinion, there seems to be a trend against extra-mural involvement generally.

However, boxing is counter-punching. One way of reversing the trend is by getting Mr Kevin Hickey, national coach of the senior Amateur Boxing Association, into more colleges of education. But this process of attempted conversion will not bring immediate results.

Mr Young insists that boxing is safer than many other sports. A bloody nose is about the worst injury in schools boxing, he says; but in a game like rugby torn ligaments, dislocated joints and fractures are not uncommon.

He says he can quote examples of how involvement in boxing has helped to reduce vandalism in schools.

He is proud of the fact that John H. Stracey, the new world welterweight professional champion, was twice a schools title winner. He hopes Stracey will be a guest of honour at the national championships in Blackpool.

Hilary moves to man's world

Miss Hilary Johnson, a teacher at Dayncourt Comprehensive School, Nottingham, has stepped into a man's world with a vengeance. She runs a wrestling club at the school and is an evangelist for the sport, hoping that more schools will take it up.

Miss Johnson's interest in the sport was aroused after seeing one of her pupils, 13-year-old Clive Rushton, compete in a schools wrestling event. She says she was immediately struck by the impeccable behaviour of the boys, their self-discipline, their perfect manners, win or lose, their obedience to the referee—so many of the things lacking in other sports.

She set up a 20-strong club at the school. All the wrestlers are first and second-year pupils, who make up for lack of experience with considerable enthusiasm.

After only five weeks, the club had already forayed into competition when some of the boys competed in an inter-school event in Derbyshire. They did not do too well, but Miss Johnson says they showed plenty of spirit and are now preparing to compete in two national competitions in January and February.

Miss Johnson is not a physical education teacher but she has the wholehearted support of Mr John Jones, head of physical education, who is a leading member of the English Schools Basketball Association. Just as vital is the help and backing she and the boys get from Clive Rushton's father, Norman, who is chairman of the schools' wrestling association.

The Rushtons are a wrestling family. Both Clive and his brother Paul, 16, are national champions which means the Dayncourt club has plenty of expert advice and assistance at hand.

This is just as well because there are only a few trained coaches, and Olympic wrestling is not the favourite sport of physical education advisers. And, as Miss Johnson points out, the public image created by televised professional wrestling. In fact, the two are poles apart.

At Dayncourt there has been an important breakthrough for wrestling, which Miss Johnson hopes can be repeated in other schools.

£10,000 a year to help cricket

The Wrigley Foundation have signed a three-year agreement giving the National Cricket Association £10,000 a year to stimulate interest in cricket among schoolboys and young players generally.

They are also to sponsor a national six-a-side indoor cricket competition.

Squash favourites take a hammering

Everything went haywire with the seedings at the British under-16 squash championships in Coventry last week. From the opening round all seeds, except one, were defeated, the official favourite Sean Flynn (Aylesbury Grammar School) going under in the second round.

The sole surviving seed, Richard Le Lieve (Elizabeth College, Guernsey) won the title in beating James Barrington, of Sussex (no relation to Jonah) 9-0, 9-3, 9-4.

Mr Tony Swift, chief national coach of the Squash Rackets Association, said he was very happy with the high standard of the players in the inaugural under-16 event.

In contrast the under-19 championship went according to form book, with Gawwain J. Jones (Gresham's School, Norfolk) defeating John Roe (Retford Grammar School) 9-5, 9-1, 10-8 in the final.

Happy year for cyclists

Whatever 1976 brings it was a happy old year for the cycling boys of the Laurence Jackson School (Guisborough, Cleveland). They won the English Schools' Cycling Association touring trophy, the Dunlop trophy and the northern circuit race and were the only school to win two of the 12 monthly prizes.

The touring trophy is to encourage cycling for pleasure and the award is based on the number of bednights at a YHA hostel. This was particularly pleasing for

Karen steps into the big time



Becoming the Kevin Keegan women's soccer is the goal of year-old Karen Hughes who has big step towards achieving her aim when she played in a Women League match at Leicester last month.

Karen, a pupil of Cannon Junior School, Coventry, and of the Liverpool star, was in the Liverpool Athletic Women's Football Club side who beat the Leeds team 2-0. She was a pressive at right wing that the club included her only because she was a player, not because she was a regular member of their team.

Hollbrooks invited Karen to sit with them when they learned to play when she moved to the Hollbrooks Athletic Women's Football Club side who beat the Leeds team 2-0. She was a pressive at right wing that the club included her only because she was a player, not because she was a regular member of their team.

At Cannon Park Karen is a keeper. "When we play we get a lot of goals," she said. "I stop laughing when I stop the scoring."

18/19
Mixed-ability French;
special education

20
Arts features

21/25
Books: social
administration;
history; Africa;
special education;
commerce textbooks

26/27
Resources:
transparencies;
science

28
Talkback:
reading difficulties;
open college

The uses of Hoggart

Christopher Griffin-Beale talks to the new Principal of Goldsmiths' College

This week Richard Hoggart starts work as Principal of Goldsmiths' College, London. His arrival marks the return to English culture and society of one of its most original and perceptive observers.

It may seem an abrupt change for someone who has spent the past five years in Paris as an Assistant Director-General at Unesco, a job that has taken him several times round the world. Yet much in Goldsmiths' unique mixture of educational activities harmonizes closely with Hoggart's own interests. There is the college's large and enterprising programme of adult education—a sector in which Hoggart spent 12 years. This—together with the college's innovative work in teacher education and its tradition of social work—perhaps brings it closer to its surrounding community than most higher education establishments. Goldsmiths' thus seems to offer unusual scope for the kind of interaction between society and culture that particularly excites Hoggart, that, as Professor of English at Birmingham, inspired him to create a Centre for Contemporary Cultural Studies, and which formed a major attraction of his work at Unesco.

Yet Hoggart is unwilling to discuss his hopes and intentions for the college until he has had time to settle in. Though he visited Goldsmiths' regularly last term, he has spent most of his time since returning to England last spring at the University of Sussex, writing a book about Unesco. It was there, in an "intellectual limbo" between Paris and Goldsmiths, that I met him last term.

In his 1971 Reith Lectures Hoggart demonstrated the meanings communicated by people's styles, manner and appearance. Yet he himself displays none of the outward clues that might suggest "academic" or "international civil servant". Short and stocky, with a brush of wiry dark hair and piercing eyes, there is an apparent air of darkling austerity, almost severity, about him, which greyish clothes only accentuate. Yet his manner communicates a directness and a quiet warmth that hark back to his own cultural roots. One cannot easily imagine him raising his voice or displaying strong anger, though there is firmness and determination in his soft Northern tones.

Nothing in his manner asserts his origins as a "scholarship boy". But there is a vigour in the often unexpected idioms that justify the more conventional cultured registers with the more conversational and writing. In an article on Auden's poetry, Hoggart briefly evokes the "All hands on deck" air of society in the thirties. Today, Hoggart contemplates "how the world wags", while nations, embarrassed by the code of conduct which Unesco membership imposes on them, try to "nip round corners".

Unesco tended to dominate his conversation. "I've been in a kind of cocoon, trying to get down what it all meant, living in Unesco in recollection." (His office on the fringes of the Palmer campus reinforces the cocoon image: it overlooks a grassy ridge rarely disturbed even by a solitary walker.) "I wanted to brood on what I'd been doing, and arrive at general conclusions about the organization's strengths and weaknesses. Its organization's strengths and then to find a way of embedding them in personal experience that wasn't just casual anecdote."

He does not want readers simply to say "Doesn't Hoggart tell good stories". He spent several weeks seeking a shape for the book that was not "inert". He assembles his thoughts, items by item on 6 x 4 cards, then "broods to see if they produce others". They have done—and the book is now progressing well, allaying his initial fears that he might not manage consecutive prose after years of drafting memos.

In Paris, Hoggart's idealism was increasingly strained by having to take responsibility for what he saw as some of the most politically and intellectually tricky aspects of Unesco's work. He was amazed how much time an international civil servant spent upholding the constitution against the expe-

diency of member states, and trying to retain the respect of world intellectual opinion, without which Unesco would be a "phony". The role of the secretariat fascinates him—a body of people from diverse cultural backgrounds who were nevertheless expected to act neutrally and internationally. This is just about possible, Hoggart believes—even though one's effectiveness depends upon actually retaining one's own cultural identity. For him "a bloodless cosmopolitanism" just will not do, so in fact he was regarded by colleagues as quite particularly British. He feels that "the notion of trying to argue straight and do an honest job is quite firmly rooted in English life", and he reckons he was able to draw on this tradition.

But his decision to return to England had nothing to do with Unesco's political life. He and his wife enjoyed Paris, living centrally in a capital city for the first time. However, it was "time out", an extended interlude that did not seem quite real. Hoggart felt like someone balanced six feet above the ground: "You could see demonstrations through your window, but they were nothing to do with you. You had no vote. You could take a human, intellectual interest in events, but you weren't part of them. Interesting and valuable as the work was, I would feel—because of my particular cast of mind—unhappy about living permanently in a society in which I was strictly on the sidelines."

So he decided to get a good spell in English education before his retirement (he is now 57). He brings with him the skills of a good committee man, an ability to attend to the small print, and an enjoyment of moving an idea forward to action. These talents, which earlier commanded him to Unesco, were first and conclusively demonstrated in the early sixties, when he was a member of the Pilkington Committee on the future of broadcasting. He succeeded in exerting a distinct individual influence on the substance and tone of the report.

The achievement underlined his ability as

a persuader, not as a manipulator, as an accomplished participant in the kind of democratic debate by which he sets such faith.

Hoggart's new colleagues at Goldsmiths' can take comfort from this and so can students. In the late sixties, as a professor at Birmingham, he felt students should have more say in university decisions than they then had, and that the administration should talk fairly with them. He was prepared to court unpopularity with senior colleagues by expressing this position in public. He is reluctant to discuss this now, but it indicates the integrity with which he upholds the values he professes, and the directness and sensitivity with which he is likely to treat the aspirations of staff and students. Whether the students will encounter him as a teacher is doubtful—and sad, if the admiration of one former student is any guide. Fifteen years on, he recalls how as a lecturer in English at Leicester University, he first demonstrated for her the interrelationship of literature with other social and academic concerns.

The manner and tone of democratic debate is a recurring theme in all his writings—his collected pieces are called *Speaking to Each Other* and his Reith lectures *Only Connect*. In one Reith lecture he suggested that if the tone in which a society was articulating its problems was wrong, then the understanding of those problems was wrong too.

So what does he feel about our society's current predicament? What about the homes in which we are discussing our problematical future?

"I'm going to disappoint you," he says. "I do find it impossible to answer such questions at the moment. Work in Unesco's hot-house atmosphere was quite remarkably all-encompassing, especially if you worked hard to meet all the demands made on you." This is not evasion, but a scrupulous recognition of how isolated from English society he has become. He has not seen enough of English education to revise the statements he made in the sixties, nor seen enough of television to detect with confidence the changes since 1970. "I would like to sit down and seek

myself in TV, and read up the submissions to the Annan Commission," he says.

His characteristic academic concern with popular culture and society is no longer as rare as it was in the mid-fifties, when he was writing *The Uses of Literacy*, regarded by many as way ahead of its time, and admired by Stuart Hall, a colleague from Hoggart's Birmingham days, for its "cultural anticipation of a given historical moment". Academic explorations of media and working-class culture now proliferate, yet Hoggart's approach stands distinctively apart. There is no hint of the almost aggressive advocacy of working-class values that informs some contemporary contributions. Moreover, at a time when many students of the media are in flight from critical discrimination and value judgments, Hoggart admits he is "unrepentantly Leavisite" in his insistence on applying moral values to the products of popular culture.

It was he who pressed for the Pilkington Report's controversial assertion that broadcasters are in a constant and sensitive relation to the moral condition of society. "Moral" here was widely misinterpreted as committing broadcasting to the promotion of particular ethical precepts, as if Hoggart was a precursor of Mary Whitehouse, rather than a major defence witness in the Lady Chatterley censorship trial in 1960.

His observations on society and culture remain remarkable for their coolness. "I've no theoretical impulse, that's for sure," he says. "It is this quality that some French social scientists find so appealing about *The Uses of Literacy*, which has only recently been discovered and translated in France. The book is extolled as a model from which their doggedly abstract native tradition might profitably learn."

The strengths and limitations of his approach are exemplified in his Reith lectures. He introduced the concept of communications refreshingly, through vivid instances of people communicating with one another rather than through generalized statements about the media. Though his lectures failed to build to any overall view, this may well reflect the hole-in-the-concrete circumstances of their composition—in moments snatched from the pressures of Unesco—rather than any more abiding intellectual limitation of Hoggart's.

There may however be another explanation why they were generally received with disappointment. The Reith lectures are a very formal kind of radio, inducing expectations that Hoggart steadily, and perhaps deliberately, frustrated. Their tone was regarded as altogether too light and chatty. A kind of stiltedness surfaces in Hoggart here: he was almost cocking a snook at the portentiousness of the occasion.

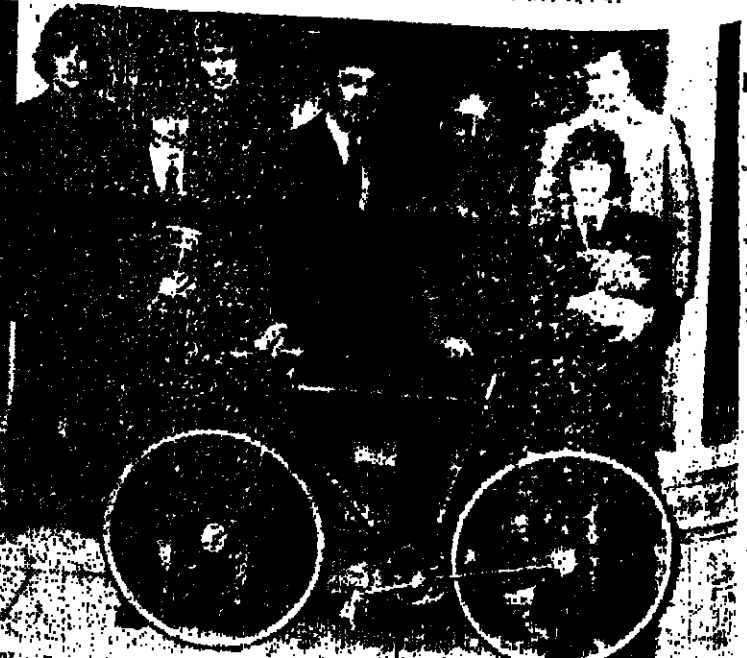
Yet the lectures are full of specific insights, far more pregnant than their anecdotal context suggests. Hoggart observes how an ambassador, called to his desk at Unesco to deliver a formal statement, suddenly relaxes into human ease once the formalities are concluded. He then describes a parallel contrast between the formality of a North country funeral and the subsequent relaxation of the family tea back home. The juxtaposition from two different social contexts illuminates our understanding of both situations—and of much more besides.

This instance shows how his qualities as an observer and practical administrator reinforce one another. Few literary academics seem to rise above their own professorial chairs to become principals or vice-chancellors. The subtleties of literary scholarship may not seem the best preparation for administering a college—let alone an international organization. But Hoggart's understanding of people—and the ones in which they communicate with one another—enhance his effectiveness in getting decisions made and implemented. His experience as administrator—particularly at Unesco—widens the evidence upon which he can draw.

Let's another reason why, now that he's back in England, he may again be able to justify Raymond Williams's description of him as "an incomparable observer of the very substance of our language and feelings".



Photograph by Harry Kerr



The Laurence Jackson boys with bike, cups, Noel Henderson and Ron Kitching

Watching their language

In the first of two TES articles on mixed ability teaching, Pat Brockman describes one school's methods of teaching French to a wide range of pupils

How do we approach the teaching of languages in mixed ability groups? How do we assess whether it is working? We know of no objective tests that will yield statistics on how a group of pupils is doing. Even external examinations reflect far more factors than just teaching method. The evaluation of success is more geared to individual teachers, their groups, and the work they do.

In language teaching, we assess whether pupils are rightly confident in their own ability to learn and to use the language being taught, whether as many as possible are actively involved in progressive rather than repetitive learning, and whether teachers are confident about what they are doing. We believe that pupils should be taught primarily to use a language. The fact that all linguists understand more than they can produce does not convince us that comprehension should form the backbone of classroom practice. This is particularly so with mixed ability groups, where the emphasis on long-term memory, the reduction in the French spoken by the pupils, and the drift towards a broader syntactic and lexical field

serves to underline the gap between the able and less able.

Hackney Downs is a comprehensive for 970 boys. The annual intake of 180 includes 15 who would have come to us in our grammar school days, and more than 60 who have a reading age of less than eight-and-a-half. French is taught throughout the first three years in mixed ability groups, though remedial facilities are eventually made available for 15 or so boys each year. Groups are small, with three registration classes shared between four teachers. We have four single periods in a week of 35, though this changes to two double periods with the introduction of fourth-year options. Then, as with German and Russian, mixed ability teaching continues through to the fifth year.

Items chosen for teaching are introduced by the teacher. In the lower school they relate to a central visual or oral stimulus—a series of objects, a short oral text, a map—or to pictures and charted information presented on overhead transparencies. Since the vast majority of textbooks and audio-visual courses have been prepared by someone else, often with experience only of grammar schools, we feel the need to act as arbiters and illustrate every item of language

taught. It seems an uneconomical use of teaching material. One hopes that non-language teachers have made a sufficiently thorough analysis of the language they speak to transfer their skills directly to pupils of whose potential they are the best judges. The teacher is therefore directly involved in the selection, setting and illustration of new items of lexis and syntax. This leads to total familiarity with the material, and engenders confidence because of the personal nature of the transaction. Demands on time are high and preparing of lessons has superseded marking as the main evening activity—although much of the material produced will be of value to everyone. We are more fortunate than some schools, where a motley collection of priorities and techniques will only blend if departmental meetings are timetabled within the school day.

A series of tests, later submitted for correlation, showed that in language learning at Hackney Downs able boys were separated from the less able not so much in short-term recollection, but in long-term memory. We concluded that any teaching approach which emphasized the former would meet with a

more homogeneous response. But the role of long-term memory in the learning of a language is not forgotten.

The amount of new language in a mixed-ability group is strictly limited, which gives all pupils time to understand and use it correctly. Without this, pupils' confidence in their ability to learn and use language must be sacrificed, as must the aim that all pupils should be actively involved. Learning should be an activity more sophisticated than is possible with the unintelligent rote memorizing of conversations or word lists.

We use writing and drawing for almost half of every lesson. As well as reinforcing the language taught, and providing a change of activity, this allows the teacher to give individual attention both to slow and fast learners. Each exercise book develops into a personal picture and language dictionary.

We cater for two broad categories of pupil—those who will drop French after the third year, and those who will be sitting external examinations in the subject. The lower school course therefore responds to two requirements: it is self-contained, and it covers less and syntax fundamental to examination work.

It could be argued that the first three years should be spent teaching "survival French", implanting useful phrases to cope with arrival in France, so that pupils get something of practical value. However, phrase-learning alone is not enough: learning how to ask for a meal, a drink and the bill follows on from work on separate items of food and drink,

quantities, eating, drinking, buying, prices, and "service phrases" such as *Je voudrais*, and *si vous plaît*.

Our language teaching is carefully structured on bases such as the grammatical function of gender—the *il/un/le, elle/une/la* selection. From here, it is extended to include things that pupils would want to say about themselves—their daily routine, their family, their interests, and their school. Next may come an exploitation of shop and café incidents, getting information and making bookings at a station, an hotel and a camp site. Then follows the establishing of the infinitive, or the *pour* form, and its use with *vouloir*, *pouvoir* and *devoir*, as a preparation for the introduction of the perfect tense.

All pupils are given the opportunity of going abroad on a day-trip, a camping weekend, or a longer visit. Those visits have influenced the nature of the language we teach: they have in many ways become a focal point. When the boys confirm that French traffic really doesn't stop at pedestrian crossings, France and its language is converted from myth to reality.

Those language departments which opt for mixed-ability groupings do so knowing the problems they will thereby avoid: when and how to set, keeping up confidence in the bottom sets, defining a syllabus for those selected from the top sets, and aligning selection with the needs of comprehensive education. Yet although an evaluation of our own effectiveness shows that problems still

exist, we feel that, unlike the ones just mentioned, we can solve them.

The progress of the slower learners, a major source of concern in most mixed ability groups, is only secured through good teaching, but their achievement has a personal as well as an academic dimension. As language learners they are handicapped when it comes to long-term recall, but this does not prevent them from achieving success. Consequently, the unrewarding nature of the listening and learning activity, which may have led to short concentration, low motivation and dulled inquisitiveness, is not a major feature of language lessons. Likewise, a number of pupils, who elsewhere exhibit varying degrees of social or cultural instability, seem to enjoy the security and precision.

At the other end of the spectrum, it is essential to keep up the pressure on the more able pupils. Written work, particularly after the first two years, often contains a section which asks pupils to apply some items of language from earlier in the course. An accurate and accessible record of language taught is very important, particularly for pupils in years four and five, though this factor in itself underlines different responses to the problem of preparing for examinations. A number of pupils manage to do the work set and are happy to live by their wits. But they find revision and learning a sterile process, and show by the lack of system in their written work that it cannot be depended upon as a source of reference. For these, it is

imperative to avoid a headlong gallop at the pace of the best pupils.

Yet language cannot remain at the level of: *il est allé en ville, il a acheté un kilo de bœuf, puis il est rentré chez lui*. Though most of language throughout the school is introduced orally, the quicker pupils' ability to acquire and apply items they have seen written is recognized. So, a story in the past tense, told simply, may form a starting point, but with oral and written work completed a printed version of the same story, with its scope for elaboration and refinement, offers in a clear context a quantity of language which the more able pupil can be expected to acquire. Story transcripts like this often take the form of eight-page readers —with French-French vocabularies, illustrations and questions—and they have made a significant contribution to the success of our able pupils in external examinations.

Learning a language, using a language and knowing its countries are experiences we do not want to preserve like vintage brandy for special guests. Yet however noble the intentions, they count for little in arguments over timetables, staffing and points. The department's strength lies in its ability to maintain its position in the school, an ability which owes little to the inherited role of languages in secondary education, and a great deal to successful mixed ability teaching.

Pat Brockman is head of French at Hackney Downs School, London. Next week Peter Roper writes on teaching mixed-ability science and mathematics.

Suitable cases for education

Jill Turner visits a special school which tries to provide a 'normal' curriculum for its severely handicapped children

All too often, schools for mentally handicapped children either have "everybody sitting in desks trying to cope a primary school", or they are merely "custodial-nursery schools". This at least is the feeling of one leading administrator in the field of special education. But one school which he believes has the best of both worlds "the finest curriculum balance I have seen"—is Oak Wood School, on the outskirts of Walsall in Staffordshire.

Oak Wood combines great freedom with highly structured learning in caring for its severely subnormal children, all of whom have IQs of less than 50. It is perhaps surprising, then, that Mrs Jackson, the headmistress, emphasizes that the children are taught to make their own decisions. But she certainly does not think of her pupils as dull: some of them are alert and lively, she says, and her job is to maximize the potential of each.

Mrs Jackson thinks a nursery school regime is a suitable basis for ESN(S) children, who stay a long time in such developmental period. But she is anxious to ensure that the need for structured learning of skills is not neglected.

When the children arrive by special transport at 9.30 they decide what to do in the first "integrated activity" session. The class teachers know each child's disabilities, and encourage them to move on from what they enjoyed the previous day to something they will find more difficult. While the pre-teacher, the other children have the freedom of the school.

Most of the activities centre on the school's only two large rooms, the hall and the craft-room. In the hall, children with physical and coordination handicaps work with simple gymnasium equipment, in specially organized groups appropriate to their learning disabilities.

A blind girl, who did little more than rock to and fro with frenetic hand gestures when she came to the school, has learnt to coordinate her leg movements sufficiently to walk along a bench. Other children climb up, over or through apparatus, throw and try to catch balls, and build with blocks of different shapes and sizes.

Mrs Jackson believes that the basic motor skills must first be established, and that unless this is done, splinter skills will develop that cannot easily be extended. The children are, therefore, taught to use their limbs independently, to see the body as an accurate reference point, to orientate themselves in space and to imitate movements. Only when these are mastered do they progress to particular skills.

Imaginative play in the hall is centred on bulky equipment which includes a Wendy House, a shop and "doctors and nurses" equipment, while in the craft-room activities

tend to be more messy. There is sand and water to be transferred from one place to another and plenty of clay.

Many children draw or paint—often with their fingers—and others work with collage colours, have to be fitted together. Clearly these activities develop perceptual ability. At the same time the children are encouraged to talk about what they are doing. What is it how children with naturally short attention spans persevere at tasks in a busy environment, often without allowing them to be interrupted by visitors.

The building, designed as a training centre rather than a school, works against what Mrs Jackson is trying to do. There seems to have been some confusion among the builders as to whether they were working on a waiting room or a school hall, and the small divisions and lack of storage space restrict open plan teaching. There is, says Mrs Jackson, a "lack of size to a child: the room for the profoundly handicapped should be three times the size".

Free activity is balanced at Oak Wood by sessions of highly structured and intensive teaching. The second session, when the children have settled in but are not yet tired, is the most intellectually demanding of the day. They are put in sets for work on their greatest weaknesses, mainly on the carefully designed, formal Distar and Peabody language programmes.

Distar teaches "basic language concepts"



The use of puppets is particularly good for disturbed children, who will not look one straight in the face.

one step at a time. The originators of the course were concerned to encourage observation and its expression in language. The teacher is told precisely what to say and the answer to elicit before moving on. Recognition of a picture of a cat is followed by the phrase "a cat", then by "is a cat" and, finally, by "This is a cat". Older children look at drawings of pencils that are short and long, and at others that are broken and not broken, and then have to describe a picture of a long pencil that is not broken, an exercise in discrimination and generalization which they find testing.

I would have thought the Distar illustrations unattractive to children, being small, complicated and visually monochrome, and the language in need of adjustment away from the occasional Americanism. But Mrs Jackson hopes to build up her own system of easy child questions. More important is that instruction that stretches their ability to construct a sentence and—in the later stages—their capacity for deduction.

From Distar, the children progress to the other formal programme, Peabody, which develops their understanding and use of language through a wide range of activities. Mrs Jackson says, do not learn easily from incidental situations, and teachers find restricting—is suitable for them.

Her children respond well to the puppet who appears to be taking the class, and Liz

Yates, one of the two half-time teachers who take Peabody, finds it is particularly good for disturbed children who will not look one straight in the face. The school do not always use the programme exactly as designed, but modify it according to the needs of the children.

The Peabody programme is designed for children functioning at a mental age of three to five years, and is specifically recommended for pre-teenage ESN(S) pupils. Motor activity crops up frequently—in the lesson content, on prepositions (that I, a Mongol girl of night, to stand behind a chair. The puppet then asked her what she was doing. "Standing behind the chair", she answered proudly. The children listen intently in groups of four to six for a 20 to 25 minute lesson each day—in itself no mean achievement for those who normally find concentration difficult.

The highly structured and specific nature of the material helps teachers to assess each child's language difficulties and, as Mrs Jackson says, gets away from the idea that language and speech are synonymous: it can be used with non-speaking children who have some comprehension. Oak Wood children need extra time and repetition for immediately noticeable. Many children have simple sentences as their spontaneous method of communication, and when stretched can cope with quite complex language.

Children from the two junior classes and the senior each have one session a day—either Distar or Peabody—aimed at developing their perception, language and thought. At the same time, Joyce Smith, the deputy head, teaches early number work and early reading (using Tansley and Nicholls' *Reading to Read*) to those who are capable of it. Meanwhile in the hall, or outside in the summer, there is another session of motor activity.

In the afternoon each class works on projects designed by the teachers, to win and hold the children's interest. First projects involve the children about their senses and movements, their family, home and school-matters normal children will not need to be taught. But the children's investigations branch out from there to the community, to essential commodities, to nature study, and even to simple abstract concepts like time and money. An external visit is included each week—the whole programme being planned with the long term aim of enabling the children to be as happy and as independent as possible in the outside world.

There are almost 60 children at the school, ranging in age from five to 18, and there are plans to introduce a few pre-school children for whom facilities are so scarce. They are divided into five classes—not, except for the profoundly handicapped class, by ability, as



Teachers find time to cuddle the more disturbed and withdrawn children.

one might expect with such a range of handicaps, but by age 18, the children's physical development is linked more closely to their chronological age, and smaller children have to be protected from larger ones with disturbed behaviour and difficulties in motor coordination.

The five classes—the profoundly handicapped, an infant class, two junior classes, and a senior—each have a class teacher who knows the children and their handicaps well. In all, there are seven full-time teachers and two half-time, assisted by three nursery nurses and three executive helpers, the people who take on the unpleasant but essential cleaning and caring for incontinent children.

Oak Wood looks after children with many different handicaps, many with severe physical difficulties as well as mental subnormality. The largest group is those with Down's Syndrome (mongolism), but there are other chromosome abnormalities with unpleasant descriptive names—cretins, happy puppets and gargyle children.

In many cases the retardation is non-specific and the cause unknown. Each child's handicap is assessed using the Peabody motor development scale, visual perception and language tests, and observation of social skills, but the teachers' efforts are still largely intuitive. "You have to see what you can do with each one," says Mrs Jackson. "It's incredible what they do learn."

A programme is devised for each child and their progress recorded, but Mrs Jackson says herself that the programmes should be made available to more people—to parents and social workers as well as to teachers.

the first schools to be established, which abolished the category of children "unsuitable for education" by transferring responsibility for the education of mentally handicapped children from social services to education authorities. Twenty thousand children were then in training centres which became special schools. "What we are doing now, we could not have done in 1971: the children have changed," says Mrs Jackson. "Some of the younger children have improved so much, they've overtaken the older ones."

Some people, she says, thought her mad when she suggested integrated activities for ESN(S) children, and some thought her foolish to take the job, believing she was "cutting herself off from education". It was difficult to get other teachers, but that situation has changed: "people now realize what these children can achieve and are looking for opportunities to join us."

Only one of the teachers, apart from Mrs Jackson, had special school teaching experience when Oak Wood opened. Most came from primary and secondary schools. David Newman, who looks after the profoundly handicapped, found taking a remedial class in a comprehensive school too restricted: he was attracted by the experimental techniques and easy atmosphere at Oak Wood.

Oak Wood is one of three ESN(S) schools in the Walsall Metropolitan area, which has a high reputation for facilities for the handicapped, in spite of having the country's lowest proportion of qualified staff among its social workers.

Whether children attend Oak Wood or stay in the subnormality hospital nearby (which also has a school attached to it)

depends mainly on whether residential care is necessary. This is not, of course, simply a matter of parental willingness to look after the child at home, nor of the degree of handicap, but depends largely on the facilities at home and the support services available.

Parents come into the school at any time of day and are especially helpful on afternoons when the children go riding or swimming. Two-thirds are active in the Parent/Teachers' Association, which raised over £5,000 to pay for an adventure playground. The school now has three play areas: a junior, a senior, and a rough one, where the older boys nail bits of wood together to make huts, and develop their motor skills in what a less ambitious school might think a dangerous environment for them.

The playscheme, run for three weeks during the summer, was initially funded completely by parents, although it now receives support both from the authority and from the school's teachers, who have each volunteered to work in it for a week. By visiting the school, the parents learn a little about fostering self-help, and evening classes are planned to extend their knowledge. They should know exactly how much help and support their child needs is important: too often a handicapped child learns on its family for help more than is necessary.

In a recent booklet published by the National Children's Bureau and the National Foundation for Educational Research, Professor Ronald Gifford says it is essential to develop the handicapped child's capacity for living as normally as possible. Mrs Jackson goes further, in that she believes her children can be taught to make a useful contribution at home.

Although some go on from Oak Wood to

senior training centres, she wants to save them from dull, repetitive tasks, and thinks that housework, which is often simple without being totally repetitive, is quite suitable for many of them. The less handicapped already help at lunch-time by serving and clearing at each of the small group tables, though more use could be made of the kitchen area in fostering household skills.

Walsall's principal educational psychologist is well aware that his authority needs to assess all 16-year-olds before they leave, and to develop through social services sketched workshops and arrangements with commercial factories. The school psychological services now manages to see all the children before they start school, but continuous assessment, like a good supply of speech therapists, is still an unmet need. "But we do pretty well," says Mrs Jackson. "A fund of sympathy has been built up in Walsall: 'The more you do, the more likely you are to get help'."

Oak Wood is a warm community. The teachers find time to cuddle the more disturbed and withdrawn children, the school secretary and the caretaker help in the playground and the older children help the younger. Extra attention must be given to the emotional needs of the handicapped if they are to be able to relate to others without feeling inadequate.

Staff at Oak Wood appreciate this, but believe, with Professor Gifford, that "the aims of teaching children with handicaps are in essence the same as those for ordinary children—so promote their optimum personal, educational and social development."

Three books on special education are reviewed on page 23.

How do they live?



An inhabitant of the Rue Daguerre

Sue Leron on a cinematic view of a Parisian street

Not many professional film-makers, their financial struggles alleviated, their teething exercises in the back yard over, return to their own street once more with a camera to bring their acquired skill and experience, as well as their special sense of the locality, to bear on their home ground. This is the seldom that a film like Agnes Varda's *Daguerreotypes* (1975), shown at the London Film Festival, emerges, to offer itself as a beguilingly simple model of the kind of film, in terms of subject matter and means required, within the scope of an amateur film-making group.

Mlle Varda, whose first film, *La Pointe Courte* (1955), was edited by Alain Resnais, and whose other work includes *Claude de Chateaufort* (1962), *Le Bonheur* (1965), and an episode of the collective film *Le Cinéma du Vietnam* (1967), to which Chris Marker, Alain Resnais, and Jean-Luc Godard also contributed, was invited to make a film about her neighbourhood, which is concerned with nos. 70-90, rue Daguerre, in Paris's 14th arrondissement, where Mlle Varda has lived for many years.

The lower half of the rue Daguerre, which runs close to the cimetière du Montparnasse, is one of the liveliest market streets in Paris, shops and stalls piled high with the best of French fare, from delicate pâtisseries to unadorned, still in its coat, straddled across a narrow, extraordinary confection in aspic to dandelion leaves, and lamb's lettuce, and, nestled in between these vendors, stalls, and hardware shops, newsagents, and bookshops, clothes shops and chemists, laundries, and shoe shops. There are few needs left unmet by the street. Always a place of activity, it is the week progress, Sunday morning is the climax: out come the specialities, the stall-holders who have been lying low, the displays; out too come the vendors of radical

newspapers, the bearers of petitions, those needing strike funds, and those with a political cause to plead. All may rest assured of a good turnout, for the whole neighbourhood must stock up not just for a Sunday of grand repasts but also for a Monday of closed shops, a dead street disguised under awnings and shutters.

Daguerreotypes does not, however, record the patterns and rhythms of life at this end of the street, with its excitement and agitation, its artistry and its richness. Mlle Varda had instead chosen to explore the more humdrum existence of the other end of the street where life very much "creeps in this petty pace from day to day" unrelieved by periodic influxes of people and ideas. Who lives here? What are they like? How do they live?

The inhabitants of 70-90, rue Daguerre are a clockmaker, a maker of perfumes and remedies, and their respective wives, a butcher, a hairdresser, a barber and a laundress. All of them come from the provinces, mainly from the west; they have settled within a mile of the station, the Gare Montparnasse, at which they arrived, charged since they opened—indeed—window display of the parfumerie has not altered for 25 years; inside are high shelves of dusty glass jars and bottles labelled by hand, and ancient display cards, remnants of a time when the shop evidently had more contact with outside suppliers. Long days are worked, often with husband or wife, and there is scarcely time or energy for extramural pursuits. Milieux are enclosed, horizons limited (and the camera sticks closely to them, a long shot even of the whole street is rare); sights are set low.

This may not seem a promising background for a film, with its suggestion of a camera

ambuling from shop to shop, in an architecturally unremarkable quarter of Paris, probing into uneventful lives. But *Daguerreotypes* easily transcends expectation in its restraint to become a film not, needless to say, for the big cinema circuits, but certainly for film societies and clubs and for the student of present-day France.

It revolves around and derives its colour and shape from the one-night visit of a conjuror to a café in this upper part of the street, the rare occasion for a local gathering, an evening out. The magician's acts, and tricks, intercut with the film's pursuit of individual shops and work-places, point up and counterpoint the world just outside the café, opening the way to visual puns, subjects of the film and for the audience. The conjuror is a good one, using the occasion to update the magician's stock-in-trade: cutting through an arm, hypnotizing members of the audience, swallowing fire, turning three 50 franc notes into five. From these events we go out to the reckoning from the fire-eating to the baker's oven, from the conjuror's money-making to the butcher's till in action, and so on.

The camera is not shy, neither is it in a hurry. It is quite prepared to linger in the shop, to return to them, to settle on the microphone is happy to eavesdrop. Thus we witness various commercial transactions, toilers, between people in the street, between bread being made, perfumes being measured out, shutters being taken down, the end of whoever's singled out to answer unspoken questions about his origins, his meeting with his spouse, his dreams and hopes and ambitions. It is the response in these last areas

that emphasizes the community's striking and shared immobility: dreams are not part of its life. These are people who expect little beyond their lot and who apparently seldom trouble about personal advance or change.

Some may feel that the film is too claustrophobic in its form, in its photography, and in its approach to the content, that more controversy should have been raised for discussion, that this section of the so-called silent majority might have been given a greater opportunity to condemn itself in the eyes of a sophisticated and radical audience, and that more of modern Paris might have been provided as a context. It would have been interesting, particularly for an English viewer, for whom much that was shown is already virtually a bygone era, to have known how much such ways of life are jeoparded and what kinds of danger are foreseen by the *Daguerreotypes* themselves. After all, the development around the tour Montparnasse is creeping none too slowly up Avenue du Maine in their direction. But it is possible because the film guards its intimacy and because it did not inquire into sensitive matters that it held the confidence of its subjects, so that they relaxed and, paradoxically, gave more of themselves.

In a brief question-time after the film's first London Film Festival screening Mlle Varda said that she would have been as pleased to make the film if her neighbourhood had been a modern shopping centre. *Daguerreotypes* owes some of its attraction to its location with its unexpectedness and eccentricities, it owes much more to its sensitive direction and an eye for the details that make up people's minute to minute lives—things that can be found wherever people are living and working—and to a hesitancy to draw conclusions, to underline points uncovered, with its consequent avoidance of condemnation and snap judgments. Interpretation is up to the spectator.

Social Service Budgets and Social Policy. By H. Glennerster. George Allen & Unwin £6.50, 0 04 360039 5.

The interflow of British and American scientific traditions has been strong and beneficial. The British, so the legend ran, produced the fundamental ideas which the Americans would fundamentally test and exploit. But this tradition is now reversed, and particularly in the applied social studies. American Academe has, in all its wonderful and crazy profusion, delivered what the pluralists always promised: a wide range of ideas, rigorous testing of propositions in terms of their having to decide Myrdal noticed as a development of the American tradition of preaching. So much in policy studies has grown from the confrontation of American policy by social science.

Howard Glennerster's book implicitly celebrates this change of role. For it was the Americans who first produced synoptic and deductive rationality which they then challenged, to produce in turn incrementalism and policy-centrality. We see from Glennerster's book how they move forward now into the area of multiple analysis and evaluative eclecticism. We will be the recipients of their benefits. For the welfare state is in middle-age crisis. The almost neurotic American quest for self-knowledge might help us out a bit.

At the risk of yet again exciting the publishers' blurb writers, it should be said that this book is timely and that it records critically and sensitively important changes in both American and British policy-making techniques. Too few of our better minds apply themselves to elucidating muddle in the way that Glennerster has done.

The book compares British and American attempts to plan and control social service expenditures. The theory of resource allocation, its social and political context, the de-

tailed techniques adopted for health, education and welfare on both sides of the Atlantic, are all clearly discussed with a respect for the record. Glennerster then argues for open political processes in which informed decisions about priorities can be made.

The reviewer inevitably looks for an extension of the argument. Glennerster knows that eclectic approaches to social policy analysis are needed but I suspect that he is an economist who has not yet become a completely honest woman. So he states the general problem of those involved in the social services in terms of their having to decide "how much and for whom" although he later expresses anxiety about narrowness of analysis.

The first issue arising from this concerns institutional arrangements. In this area he follows Don-nison's model in which the providers largely determine the outcome in a "whole hierarchy of rationing decisions which react upon each other since no subordinate levels passively accept the allocations made from above." He thus assumes that in both countries there is a managerial paradigm of structure and research allocation.

This is partly true, but more for Whitehall than for Westminster or the total system. The analytic inventory (into which let me not rush) of governmental relationships would show an astonishing range of prime institutions which pulsate with their own decision making—the 30,000 schools and colleges, the wards of mental hospitals, social work patches, and the social security offices.

We then need to see how values are generated by each of these institutions through idiosyncratic relationships between the service givers and the clients. These in their turn create institutional and professional husks, and historic commitments to differential allocations which are embodied in the annual budget cycle, in the physical plant that is built, in the professional assumptions of training.

OUR PLIGHT IN PERSPECTIVE

Guy Neave

Education and the Industrial Revolution. By E. G. West. Batsford £6.50, 0 7134 2778 7. Paperback £2.95, 2892 9.

It is somewhat of a banality to say that education, democracy and industrial development are inextricably bound together. Indeed, they constitute a basic education on which social stability is based. The delicacy of this formula was certainly recognized by the Victorians. Hence, industrialization and electoral reform were closely followed by the creation of a national education system 106 years ago. But perhaps the major difference between then and now is the change in attitude which innovation inspires. To the Victorians, change and education was no exception—symbolized by the day of the industrial needs of the day.

Professor West sets out to disprove this. His is indeed an original line. First, he suggests, industrial decline set in during the Edwardian era, not earlier. Second, the "system of education" existing prior to the Act of 1879 was far more adequate in meeting the demands thrust upon it than many have suspected. His argument that W. E. Foster chose, deliberately, to ignore, if not to play down the role of private fee-paying schools is, however, not there could be no excuse for cutting back the education budget.

Now it is extremely difficult to prove that industrial decline stems from the shortcomings of our education system—at least to the satisfaction of the economist. If it were, there would be no excuse for cutting back the education budget. Nevertheless, at this particular juncture in our history, it is not inappropriate that educationists, literary historians (not to mention historically minded economists) should seek the origins of our present ills in the past. It is, after all, important to show that our newly submerged status is not due to our past policies in education. We need some form of reassurance against the fatal diagnosis contained in the recent report from the Hudson Institute—assuming, of course, one takes that report at all seriously.

A time-honoured method of explaining Britain's position today involves rooting around and through the various commissions on education whose reports coincided with the time economists see as the start of the downturn in Britain's economy. This is usually associated with the 1890s when Germany and the United States began to overtake this country in the fields of chemistry and electro-technics. Failure to meet international competition, it is argued, stemmed from the lack of a sufficiently educated labour force. It is an old theme, no less judicious to-day than when it was first uttered by Lyon Playfair, of the Webbs or of Haldane 60 or 100 years on. State education, so this school of thought believes, came too late and, when it did come, was ineffective in meeting the industrial needs of the day.

planning Britain's position today involves rooting around and through the various commissions on education whose reports coincided with the time economists see as the start of the downturn in Britain's economy. This is usually associated with the 1890s when Germany and the United States began to overtake this country in the fields of chemistry and electro-technics. Failure to meet international competition, it is argued, stemmed from the lack of a sufficiently educated labour force. It is an old theme, no less judicious to-day than when it was first uttered by Lyon Playfair, of the Webbs or of Haldane 60 or 100 years on. State education, so this school of thought believes, came too late and, when it did come, was ineffective in meeting the industrial needs of the day.

planning Britain's position today involves rooting around and through the various commissions on education whose reports coincided with the time economists see as the start of the downturn in Britain's economy. This is usually associated with the 1890s when Germany and the United States began to overtake this country in the fields of chemistry and electro-technics. Failure to meet international competition, it is argued, stemmed from the lack of a sufficiently educated labour force. It is an old theme, no less judicious to-day than when it was first uttered by Lyon Playfair, of the Webbs or of Haldane 60 or 100 years on. State education, so this school of thought believes, came too late and, when it did come, was ineffective in meeting the industrial needs of the day.

planning Britain's position today involves rooting around and through the various commissions on education whose reports coincided with the time economists see as the start of the downturn in Britain's economy. This is usually associated with the 1890s when Germany and the United States began to overtake this country in the fields of chemistry and electro-technics. Failure to meet international competition, it is argued, stemmed from the lack of a sufficiently educated labour force. It is an old theme, no less judicious to-day than when it was first uttered by Lyon Playfair, of the Webbs or of Haldane 60 or 100 years on. State education, so this school of thought believes, came too late and, when it did come, was ineffective in meeting the industrial needs of the day.

planning Britain's position today involves rooting around and through the various commissions on education whose reports coincided with the time economists see as the start of the downturn in Britain's economy. This is usually associated with the 1890s when Germany and the United States began to overtake this country in the fields of chemistry and electro-technics. Failure to meet international competition, it is argued, stemmed from the lack of a sufficiently educated labour force. It is an old theme, no less judicious to-day than when it was first uttered by Lyon Playfair, of the Webbs or of Haldane 60 or 100 years on. State education, so this school of thought believes, came too late and, when it did come, was ineffective in meeting the industrial needs of the day.

The Central Conundrum

Maurice Kogan on social policy

These functions make micro-economics too narrow a framework for decision making. That is why we need far more eclectic research to build on the classic beginnings of Lindblom, Braytonnke and Wildavsky and to widen the range of concern, including a concern that things will work. Don-nison once remarked that disjointed incrementalism (in Lindblom's inelegant phrase) would hardly help determine where the third London airport should be built.

Glennerster knows all this. He is concerned that processes as well as priorities should be brought into the act. But I wish that he had gone farther. Whitehall followed the best thinking of its day in introducing attempts at output budgeting and programme analysis review. If in doing these things it became too "hard", it was healthily reacting from the amateurism of intuitive muddling through. Moreover, Glennerster usefully describes American attempts at the evaluation of research which brings out a whole range of purposes and a corresponding range of methods.

These appear, however, towards the end of his book, and he does not carry through his statement of how such multiple analyses could be used in our context. This restriction might be exceedingly disappointing of course. If, for starters, we ask for a values analysis, a cost analysis, an analysis of the psychological dimensions of service (delivery and all that), and organization analysis, and client perception analysis, or the wider institutional analysis which would bring in such dimensions as participation in terms both of its benefits and disbenefits, we then face enormous problems of both analysis and statement.

For economists has the advantage of dealing in aggregatable units. The liberal analyst, as with those concerned with developing illuminative studies in education, must produce a large range of statements for which it is impossible to use consistent language and which produce, in a metaphor I have used

previously, a kaleidoscope in which the pattern changes each time we tap the box. And, who knows but that a kaleidoscope might not prove to be a Rorschach test? But since it is certainly true that in the end society intuitively makes its decisions on short term considerations (which each contain the sediment of longer-term thinking) we may at least make sure that the pressures on decision making are multiple rather than single.

So we can share Glennerster's view that the Lindblomian model is "particularly well suited to social policy where facts and values are so interwoven" but the point is no longer whether decision should be open and pluralistic but how to achieve this.

It would do the author an injustice, however, to imply that his book is narrowly concerned with future policies. It evaluates well the techniques adopted, as well as their context. He rightly remarks that the Treasury and United States Office of Management and Budget differ in the central they have over spending agencies but he also points out that, ultimately, the nature of their negotiation is much the same. He describes the high optimism accompanying the introduction of systematic strategic planning in the federal system and the pessimism and disillusion that followed. He describes how the British Treasury learnt from American experience by producing a two-track system. Public expenditure is more systematically planned since the Fowden report of 1961 but, at the same time, intensive studies of particular areas of policy (through programme analysis) are conducted.

The questions that remain are whether that dual process is open enough, and well enough done. Here is, perhaps, the place for a statement of repentance: I am no longer sure whether it was the DES officials or ministers who made the OECD examination into a closed process. Certainly, we are getting into a silly phase at present where we assume that politics are beautiful and administration wicked. There is a healthy murmur developing behind the scenes that in education at least a national institute (comparable with its economics counterpart) could be usefully set up which would test and advance policy-making in education as an activity separate from that of the DES. Also, we can look hopefully towards recent developments in the DHSS research management system where outside researchers, policy makers and professionals meet in research liaison groups to develop research objectives and at the same time begin, inevitably, to look at more general policy objectives.

This book is useful, then, to everybody concerned with social planning and governmental processes, but it leaves the reader with the central conundrum that faces the intellectual concerned with social action. Why is rationality not the best guide to action? Why is it impossible for teachers confronting angry students, for DES officials working hard at making fair adjudications on priorities, for politicians trying to be both fair and popular, to be analytic, to take the knowledge that they can best gain and get it all right? Why are muddling through and opportunism apparently the more successful ways?

HARRAP'S COURSE IN REFORMED GEOGRAPHY

Geoff Dingle, Stephen Cottrell and Ian Thorn



The approach in this long-needed reformation of subject content and teaching methods for secondary level geography is concentric: from the ingredients of a topic one moves to their manifestation at local, regional, national and world levels, so that recurring patterns, relationships and processes can be easily discerned. The series is designed to maximise student and teacher involvement. To this end countless examples of practical work are provided. In which class collaboration and cooperation are essential. Each course offers considerable practical work, including integrated games and simulation, problem-solving, quantitative techniques and making hardware models. Most sections within a course have a progression of increasing difficulty, in order to give flexibility in use for the teacher. Although the series is aimed at the 11-16 age group, much of the material can be used for more senior students.

The introductory book outlines the basic skills of the subject and takes a practical look at the students' physical surroundings. The other five books investigate man's major activities on the earth's surface. Each course begins from a basic introduction and builds up the students' understanding and knowledge through their own discovery. The Teachers Guide outlines the philosophy of reformed geography, the teaching strategy and gives necessary materials, answers and information for all six books.

Ready Now
Farming Teacher's Guide Manufacturing
Ready March
Introduction to Reformed Geography
Forestry, Fishing, Mining and Power
Transport, Settlement and Services Each book £1.75
Teachers' Guide: Free of charge upon application to our Education Department.

HARRAP BOOKS
182-184 High Holborn, London WC1V 7AX

24 Books/Commerce/Religious Education

OFFICE ASSIGNMENTS

Margaret J. Harrison

Elementary Secretarial Practice. By S. M. W. Reeside. A Sampler. Varied Approaches. Cassell £1.40. 0 304 29600 7.

Described by the author as "a sampler of varied approaches" to the teaching of elementary office practice, this book is intended for students who experience difficulty in learning and might be slightly more motivated by joining in the exercises and activities suggested and thus enjoy their work.

The book is very well illustrated and contains two main sections: Job-finding, that is, ways of finding work, preparation for interviews, the interview, results of interview, items of office equipment and stationery encountered on the first day in an office; and The Work in an Office which deals with mail, incoming and outgoing, and some of the pitfalls, and the use of the telephone—with graphic illustrations.

Questions are asked throughout the book and crossword puzzles are used for revision purposes, the answers being provided at the back of the book.

A few questions and phrases are included for which no answer or explanation is given in the book in order to induce students to ask their teacher for an explanation.

The book includes notes on materials and teaching aids, questions an applicant should ask an interviewer, and some helpful suggestions on organizing office equipment activities to familiarize students with the names of items of office equipment.

This book would be suitable for students in an office course as an introduction to junior office work.

The Secretary's Dictionary. By R. Stevenson. Cassell £3.25. 0 304 29592 2.

Compiled along the lines of the *Typewriting Dictionary* familiar to most students and teachers of typewriting, this handbook has been prepared with the needs of all office personnel in mind, and therefore includes basic information on matters relating to office practice and secretarial duties as well as those for typewriting.

The book is arranged alphabetically, each section commencing with a list of the most frequently used business abbreviations, designatory letters, etc. It is cross-referenced throughout (a useful lesson for students), and sources of further reading are given where applicable. Examining bodies and the principal examinations are listed and explained, and addresses given for further details.

Whilst the emphasis is on the work of the typist (all categories), there are many items of interest for other grades of office personnel. The book is well illustrated and contains many good examples which are simple and easy to follow (and copy), and quite explicit instructions are given for particular typewriting operations such as chain (or back) feeding of envelopes, various forms of display, including legal documents, typing of formulae.

This would be an invaluable book of reference in any office or secretarial classroom. Its 201 pages are well bound with a firm, hard-wearing cover.

COMMERCIAL OBJECTIVES

Alan B. Hooker

Handbooks on Objective Testing: Commerce. By D. J. Thomas and A. E. Matten. Methuen 80p. 0 423 88230 5.

This handbook, one of a series each covering a typical O and/or CSE level subject, consists of some 70 pages and at the published price of 80p cannot be considered a worthwhile buy. Its content consists of 180 typical "short answer" questions, mainly multiple choice, of the type to be found in the RSA Stage I Commerce and similar papers: a key to the answers; and the whole preceded by a rambling "general introduction" of 13 pages designed to explain the principles of objective testing to both teacher and student alike, and how such methods may be best exploited.

My main criticism concerns the introduction which is too long, much too technical and altogether makes for tedious reading so that the reader, particularly the student, may reach the end more confused than enlightened. In short, it dominates the book.

With regard to the questions it is most likely that teachers will continue to "borrow" these from old examination papers rather than purchase a class set of handbooks for around £20—a sum that can be better used in these days of strict economic control. Also the key to answers is not without fault (vide item number seven—surely the correct option must be D).

I am by no means anti-objective testing but, in these a real need for this book or indeed the whole series, is in a case of "yet another one to choose from" thereby adding confusion rather than simplicity to selection.

FIRST COURSE

H. J. Tierney

Practical Accounting — A Basic Course. By C. G. Gatten. McGraw-Hill £1.95. 07 084202 7.

The title of this book may be somewhat misleading. The contents have rather more to do with book-keeping than accounting and the book's scope is fairly summarized by the author in his preface: "This book has been written primarily for students taking their first examination in accounting, RSA (Stage I) and comparable examinations is indicated. The work therefore might be more fittingly entitled 'Book-keeping and Accounting — A First Course'."

The book extends to over 300 pages and comprises some 32 chapters of approximately equal length and leads the student through such topics as the nature and use of day books, journal books and records and manufacturing and partnership accounts. Three hundred pages constitute a fair size in these days of inflated text books but are hardly enough for some of the topics: for example, the single chapter on limited companies runs to only 10 pages and the result is a sketchy treatment of that decidedly important aspect of practical accounting.

This is the author's first book and students may sometimes be puzzled by his style. Thus most chapters are introduced by a review of some earlier material and Chapter 14, "Separate Ledgers," the scope of which is not at once apparent, begins with a review of the multi-column cash book, a largely unexplained subject. And the chapter on depreciation tells us, "A new motor car is not worth so much... this obscuring the author's point by poor sentence construction. On depreciation also, the author uses the pre-1948 style of recording asset values, rendered obsolete and unhelpful by the Companies Act of that year.

The best features of the book are its introductions, at a modest level, to a large number of subjects to be further investigated by students and the wealth of examples and examination questions by which those subjects are illustrated.

HOW TO MANAGE

Howard Sergeant

Techniques and Developments in Management: A Selection. By Margaret Butteriss. Institute of Personnel Management. £1.30 paperback. 0 85292 1187.

Although this volume is intended for the newcomers to the field of personnel management, it will prove an excellent guide for practitioners who, through lack of time or opportunity, have been unable to keep abreast of the latest ideas in management.

It has justifiably been said that the management of human resources is one of the most important functions of management today. I imagine that Margaret Butteriss would subscribe to this view for, in making her selection, she has decided to confine her attention to the most recent developments affecting organizations in general and personnel management in particular, and to exclude well-established techniques and developments such as recruitment and selection, and wage and salary systems, on the ground that they have already been covered by other textbooks.

That she is acutely conscious of changing social values in regard to the education of employees, and the need for industry to recognize those changes, is witnessed by the

fact that the first section of her book concentrates upon the areas of greatest pressure today—job enlargement and enrichment; autonomous work groups; worker participation; works councils; employee directors; supervisory boards and common ownership. In the second section she deals with corporate needs in relation to objectives and ex-aminations. In considerable detail, developments such as manpower planning, management by objectives, organization development, and performance appraisal. In each case she discusses the problems involved, as well as the advantages and disadvantages. The chapter on human resource accounting has been contributed by J. J. Maynard, principal lecturer in financial management at Kingston Polytechnic. This book can be warmly recommended.

Cost Control for the Manager. By H. J. Goater. Bell £1.85 paperback. 0 7135 1905 3.

Cost Control for the Manager is designed as an introduction to the principles of cost accounting, and it will be found useful by students preparing for examinations in accountancy at foundation stage level, as well as those studying the subject in the first year of degree and HND courses.

HOME HELP

Brigid Hardwick

TV Times Family Books: Dear Katie. By Katie Boyle. 0 900 72734 9. *Know Your Rights*. By Dr Michael Winstanley and Ruth Dunkley. 72732 2. *Power Tools at Home*. By Harold King. 72732 2. *Know Your Car*. By John Dyson. 72732 4. *Caravanning*. By Barry Williams. 72734 9. *House Plants Made Easy*. By Joan Taylor. 72733 0. *Beating the Cost of Cooking*. By Mary Berry. 72737. Independent Television Books, 89p each.

The TV Times Family Books are good value at 99p each. They are well illustrated and in each one an expert deals competently and clearly with some aspect of domestic life. Katie Boyle's *Dear Katie* is the exception, for she covers problems as disparate as "Feet which perspire more freely on some people than others," and "Zips" which will sit very oddly on your clothes if you attempt to put them in according to her instructions. However, her book includes some very useful addresses of services and sources of information.

So too does *Know Your Rights*, which is full of invaluable advice for coping with the unfriendly aspects of social life: taxes, burials, aircraft noise, as well as the more cheerful but equally complicated ones: choosing schools, claiming rent rebates, your rights in a pub. Each section is followed by a list of addresses and a book list.

Harold King explains the uses of power tools at home with admirable calm, including many useful tips, obviously discovered in the course of his own work. *Know Your Car* is a complete introduction to the car's engine and bodywork and a guide to its maintenance. It also provides information on costs, going abroad and emergencies, together with a list of helpful organizations.

Caravanning reveals a luxurious world undreamt of by the tenters: pleasant to use as a form of household toilet, divots and cat-lytic heaters. Moreover, it contains much sound advice on hiring, buying, insurance and towing, both at home and abroad.

Joan Taylor, helped by Tony Sraek's delightful drawings, explains in *House Plants Made Easy* how to care for them while you are away; their general needs and how to display them. Photographs illustrate a catalogue of the more popular house plants.

The same illustrator has also embellished *Beating the Cost of Cooking*, which, despite its non-sensical title, contains sensible advice on thrifty housekeeping.

JUSTIFIED BY HEROES

W. Owen Cole

Have a Good Day! My Alec Gilmore. Hodder and Stoughton £2.75. 0 340 19221 6.

In a twelvemonth which has seen two highly respected scholars and a number of lesser mortals in the field of religious education argue that school worship (which they carefully distinguish from other assemblies) should be abolished, it is interesting to see that the flood of aids to worship has not begun to abate. Of course, this merely underlines the continuing ambivalence of aim among teachers of the subject.

Mr Gilmore has provided a collection of readings set in a Christian liturgical context of a hymn, a Bible reading and a prayer. It is very much what I dutifully prepared each holiday for my headmaster to use a dozen years ago. Upon what grounds can it be justified today? What does it add that we do not possess in abundance already? The answer lies in the examples, people whose lives are courage, the struggle for racial equality and respect, the meaning of Christian festivals. The examples are of people still living or who have recently died. There is the story of Grace Halls, the white American who underwent medical treatment to become black, and who eventually wrote *Soul Sister*, and that of Caroline Maria de Jesus, a Brazilian Negress, and other famous names such as Jack Ashley, MP, Susan Humphshire, Yevtushenko and Rose Kennedy.

On its own terms the book is a serious study. The cover and black and white photographs in the book with which black Christians can identify: white heroes of whom no cause for pride. Moreover, *Soul Sister* may tell me whites something they ought to know but what does it say to their black classmates? A teacher who looks at the teenagers gathered there must be selection; this is most competently done, includes all the best examples, and has been partly based on accessibility. However, Mr Houlder chooses to divide up Wales not by old counties or new districts, but by mountain masses. This curious system has little to commend it, and one cannot see

why territories bounded by river systems would not have done as well. His divisions fail to take adequate account of the geographical distribution of any particular cultural class, and indeed they tend to force upon the user the whole of the archaeology in a given area, without much room for personal selection. As the book is in a small (pocket) format, the three crucial introductory maps are too greatly reduced, and demand a knowledge of cartographical practice likely to be in excess of what potential users of the guide can command. Nor does it seem particularly easy to follow all of his system of abbreviations. The older and more conventional archaeological guide-books, for instance the Bateford series, still possess much merit from the point of view of the amateur or the in-

COMPLETE COVER

Kathleen Gibberd

A Book of Assemblies. By Derek Waters. Mills and Boon. £2.50. 05782 8.

This stoutly bound book of 128 pages is a handbook for the primary school teacher who is responsible for school assembly. It covers everything. Part One looks at everything from the planning stage, examining its purpose, accepting the value of regularity, commending the open ended approach and calling for "imagination and energy". It is unusual in its suggestions for different kinds of seating arrangements. Part Two reports some of

the introductory remarks of Part One and then shows how nine representative themes could be used for assembly, including the "supper materials" (songs, pictures, clothes, puppets) and "developments" (excursions, letter writing, projects) as well as sources of information and "themes for similar treatment". A Sunday school's birthday and a wish from the postman are three themes that can be readily transported. Part Three of the book consists of 10 pages of books, plays and music that might come in useful.

NATIONS AND NATIONALISM

B. S. Roberson on political geography

Our Fragmented World: An Introduction to Political Geography. By Gordon W. East and R. V. Prescott. Macmillan £6.95. 333 15109 7. £2.95 paper. 15169 0.

When I first glanced at the contents of this book, I felt like a small boy with free run of a sweet shop—wanting to try it all at once and not knowing where to start. Here is a treasure house for all interested in world affairs and particularly for geographers who want to know the part their subject plays in understanding and interpreting them. It is lucid, readable, authoritative and above all, a world where party political attitudes are pressing into so many fields of study, it is neutral. The authors "have dared to look at the world as a whole" . . . from the standpoint of political geography. They investigate "the two-way relationship between geography and politics as exhibited by states", and a very good job they have made of it.

The unifying overall theme is a comparative study of states, as influenced by their geographical circumstances, but the book is so full of specific examples as to be free of any accusations of vague generalization. Justice can only be done by consideration of selected chapters. The second, for example, "The Inhabitants of States", should be studied by all teachers before they venture to discuss racial problems in class. Differences of many kinds between peoples are analysed. The part played by language is usefully considered, and there are some cautious thoughts on nations and nationalism. The chapter is illustrated by four detailed examples, Belgium, Switzerland, the Soviet Union and Canada.

The political geography of the sea is of major importance nowadays. We are reminded throughout the ability to obtain valuable minerals from its bed. Chapter eight provides an outline background to problems of maritime boundaries, so often headlined today. Matters

exemplified are off-shore oil, the Cod War and some other less well-known fishing disputes. The very existence of this chapter is important. The Holocaust of the future—may it never come—could erupt from the Dardanelles rather than Danzig.

Chapters three and four, on territories and boundaries, are again full of material of current problems. The Captivi Strip is one in the news today; others will be. The final chapter distinguishes between geopolitics—a dirty word if ever there was one—and geopolitics, and concludes with a broad review of world powers from this aspect. We are reminded, both specifically and by implication, of the writings of Mackinder and Bowman, to which this book is a worthy successor. It is permeated by an awareness of history. We are reminded throughout the history is always with us—a nice lesson to learn from a geography book. Perhaps an historian will return the compliment some time?

POLLUTION ALARM BELLS

Jim Anthony on environmental geography

Man's Environment—Human Geography in colour. By D. C. Money. Evans, Paperback £2.45. 0 237 29120 7. Casebound £2.95. 0 237 29094 4.

This is an absorbing book from Mr Money, who seems to have been specialising in what I used to call human geography for a generation; nowadays the catchword is environment, and which arguably should be as compulsory as religious instruction in school curricula.

Mr Money's earlier books in this related series, *The Earth's Surface* and *Patterns of Settlement*, provide the basic groundwork for this. The book is a study in the environment in examination of the environment in which all living things have a stake; we are given a timely reminder that it is arrogant to talk of man's environment when it is actually shared by upwards of a million other species.

It is no disparagement to say that the book reads like an O level textbook with evangelical overtones; it should rather be taken as a complement. There is a carefully-outlined section on each of the major "spheres", (atmosphere, hydrosphere, lithosphere, etc.) to explain exactly what physical conditions underlie the spoils of the most destructive predator the world has known—man.

It would take a list twice the length of this review simply to detail the topics which are introduced in more or less depth; the casual reader to whom this book should be of interest, will find plenty of fodder for his own particular hobby horses, and facts to back up his prejudices. I was particularly interested in "water world" which deals with river patterns, the use of water, pollution, storage, dams, lakes, industrial and domestic use and so on. There is no mention of the harem-

brained (or inspired) schemes to tow giant icebergs from the Antarctic to Australia to provide irrigation water for that dry land, but almost every other avenue of interest is explored to make the reader realise what a vital commodity water is.

Mr Money's book will, one hopes, add a few decibels to the pollution alarm bells which are now clanging insistently; the local joke about the chemical pollution of Lake Erie, that anyone unfortunate enough to fall in would disappear before he had time to drown, is now magnified and broadcast worldwide in a thousand variations.

This book serves well as a textbook for secondary schools and colleges, with an abundance of maps, plans, drawings and superb colour photographs; this message bears should be duplicated in millions, together with others like it, for universal consumption.

WALES: MAPPING THE PAST

Charles Thomas

Wales: An Archaeological Guide. By Christopher Houlder. Faber and Faber £4.50. 0 571 08221 1.

Mr Houlder obviously knows Welsh archaeology backwards, is professionally involved with it (he works in the Royal Commission on Ancient Monuments for Wales), and has made distinguished contributions to the subject. His guide-book is not, however, the easiest of guides to read. It is a study in the environment in which all living things have a stake; we are given a timely reminder that it is arrogant to talk of man's environment when it is actually shared by upwards of a million other species.

On its own terms the book is a serious study. The cover and black and white photographs in the book with which black Christians can identify: white heroes of whom no cause for pride. Moreover, *Soul Sister* may tell me whites something they ought to know but what does it say to their black classmates? A teacher who looks at the teenagers gathered there must be selection; this is most competently done, includes all the best examples, and has been partly based on accessibility. However, Mr Houlder chooses to divide up Wales not by old counties or new districts, but by mountain masses. This curious system has little to commend it, and one cannot see

why territories bounded by river systems would not have done as well. His divisions fail to take adequate account of the geographical distribution of any particular cultural class, and indeed they tend to force upon the user the whole of the archaeology in a given area, without much room for personal selection. As the book is in a small (pocket) format, the three crucial introductory maps are too greatly reduced, and demand a knowledge of cartographical practice likely to be in excess of what potential users of the guide can command. Nor does it seem particularly easy to follow all of his system of abbreviations. The older and more conventional archaeological guide-books, for instance the Bateford series, still possess much merit from the point of view of the amateur or the in-

formed visitor. It is claimed that the purpose of Mr Houlder's guide is to draw attention to selected sites that can conveniently be visited in a day or two of motoring from 45 chosen centres. Even George Borrow might have quailed at this prospect. There are, of course, many good points; the coverage of features of all periods, from prehistoric to modern, is fair and balanced (and this is no easy accomplishment), and descriptions of individual sites are terse, factual, and authoritative, while the photographs and line drawings (again, all rather small) are chosen with much thought and care. The arrangement of the material will strike some readers as eccentric; the material itself is not, but only a field test will, I think, reveal to what extent this particular guide can actually be employed with profit.

BIRD'S EYE VIEW

Donald MacDonald

Europe from the Air. By E. J. Barker and L. H. Williams. Heinemann Educational 95p. 0 435 34040 9.

Aerial photographs can be much more than pretty pictures or even useful teaching aids. They can also be a legitimate source of revenue for authors who are willing and able to match sufficient prose and pictures to fill 64 pages—often held to be a reasonable size for an inexpensive schoolbook. Of such, then, is this little volume on Europe. It follows previous counterparts on Scotland and Wales.

The former, for example, coupled aerial photos with chunks of verbal description, whereas the Europe volume tries to involve the reader. Most of the material accompanying the photos is thus in exercise form. The overall idea is a very fair one, and the attendant problems are minor ones. Possibly there is a bit of imbalance between specific points of localized landscape detail and broader generalizations about European geography. While the former abound, there are not quite enough of the latter.

The success of the ideographic approach which Barker and Williams tend to use is dependent partly upon accuracy of detail and partly upon coherence of arrange-

25 Books/Geography

THE MAO SPIRIT

Lois Mitchison on China

Looking at China. By Noel Gray. Black/Lippincott £1.25. 0 7136 1429 3. *The People's Republic of China*. By J. and G. Stokes. Benn £2.95. 0 510 11005 5.

A growing number of schools and colleges are now teaching courses on China. But a difficulty of these courses continues to be the shortage of up-to-date material particularly for younger students. These two books will help to meet this demand: Miss Noel Gray's *Looking at China* could be used in primary schools, the Stokes' *The People's Republic of China* with older children.

Both books include material from the early 1970s. The Stokes' book takes "ping-pong diplomacy" up to the acceptance of China into the United Nations, and it includes discussion of the Chinese economy in the sixties based on figures which have only recently been released in Peking.

Both books have several pictures on most pages and interesting maps. *Looking at China* has a number of colour plates, but the illustrations in *The People's Republic* are more original and more pertinent to the text. The reproductions of children's pictures on how they see Chairman Mao's thoughts, or the cheerful commune committees, could be in themselves useful starting points for class discussion. It is, however, a

ply that the arresting colour picture on the front cover is meticulously untypical—an apparently young girl carrying a loaded machine gun.

Looking at China suffers from being a very short and a very simple book. There is no room for China's present problems, a short chapter only on the historical background, and the tone is of consistent admiration for all China's achievements. There is, however, no overt political message, and the many details of family life should appeal to young children.

Mr and Mrs Stokes have had space for more historical background and for a more critical approach. There is a pleasant book to read with telling quotations and some lively stories—including the Christian warrior who baptised his army with a hosepipe. Among the questions they raise is how long it will take the Mao spirit of self sacrifice and acceptance of personal criticism survive in China. Unfortunately they do not raise other questions likely to interest older schoolchildren—how far have the educational reforms of the Cultural Revolution (which the Stokes do describe) sacrificed the quality of Chinese education to political considerations? A second omission is that there are no suggestions for further reading. Instead space is taken up by repetition—the historical system of examinations in China is, for instance, discussed in three separate chapters. These are, however, minor drawbacks to the most up-to-date school account of China at present available.

HUMAN LANDSCAPE

D. A. Alexander

Man and his World: An Introduction to Human Geography. By John A. Dawson and David Thomas. Nelson. £2.20. 0 17 444013 8.

Many students embarking upon geography courses in higher education have a clearer picture of the framework of physical than of human geography. Professor Thomas and Dr Dawson keep this firmly in mind throughout their textbook.

They have shown that human geography too, has an identifiable framework within which it is possible to hypothesize, to generalize, and on occasions, to predict by . . . mathematical abstractions and models". In a clear, concise and thoroughly professional way, they have succeeded in introducing both subject matter—although fact is reduced in favour of understanding—and current analytical techniques within the framework of social scientific inquiry. Description is used to recognize patterns created by man's diverse progress over the earth's surface, while explanation of emerging problems requires understanding of both mechanisms and processes operating in the past

and following present and future decisions.

The book's thematic approach divides neatly into interrelated parts, the first concerned with identifiable spatial patterns of man and his racial, religious, linguistic and territorial characteristics. Part Two examines the morphology of the human landscape, and the processes which have created the elements and structures of rural and urban land use. The second half of the book concentrates upon current socio-economic issues. Part Three looks at agricultural systems and mining, manufacturing and service industries of rational, economic man, while the final part analyses man in society through social and political organizations and the micro-scale perceptions that are vital in decision-making.

Skillful integration of analytical techniques, diagrams and illustrations is supported by sound references and exhortation to a good atlas, the latter particularly welcome to those who fear its imminent exchange for the pocket calculator. The authors sincerely hope that the book will be valuable for many first-year college students, will be widely adopted for A-level courses. It should quicken the diffusion process within the secondary system and can be strongly recommended.

HAILE SELASSIE AND AFTER

Richard Waller

Ethiopia. By Blair Thomson. Robson Books. Paperback £1.10. 0 903895 50 1.

The Ethiopian revolution is almost unique in Africa for having proceeded so far without any clear aims and for having been, until the executions of November 1974, bloodless. Yet little is known about it. Even the membership of the Dergue, the ruling military junta, is conjectural. Why did the monarchy succumb so easily?

The introduction, a review of Ethiopia's history and government, is unfortunately adrift. There is nothing on the Wollo famine and little on the tensions between the Amhara elite and their non-Amhara subjects, especially the Galla peoples. The narrative, however, is well informed and detailed. As events progress and details emerge, the book provides an account of the progress of the "Creeping Coup"—an apt name for the series of pushes which, starting with the strikes and riots of February,

finally toppled Haile Selassie in September 1974. The series of despatches from Addis Ababa, put together with an introduction, carries no analytical weight and bears the marks of hasty preparation (including an appalling jacket blurb) and a host of proof-reading errors.

The introduction, a review of Ethiopia's history and government, is unfortunately adrift. There is nothing on the Wollo famine and little on the tensions between the Amhara elite and their non-Amhara subjects, especially the Galla peoples. The narrative, however, is well informed and detailed. As events progress and details emerge, the book provides an account of the progress of the "Creeping Coup"—an apt name for the series of pushes which, starting with the strikes and riots of February,

Trial and error in the art of transparency-making

by Owen Surridge

Blackboards are likely to be with us for a long time despite the trumpeting of technological innovations. However, more and more teachers are supplementing chalk and talk with pictures and diagrams for showing on an overhead projector.

Much transparency material is commercially prepared for teachers but there are two drawbacks to its use. First, the enforced change of teaching style, the initiative being transferred to the designers and publishers of the material; second, cost.

So most teachers must quickly come to terms with the art of transparency-making for themselves. This is not so difficult as it may seem. First, however, we must examine the range of materials available for the job—and suitability will vary with personal needs. Tyros must be prepared to experiment to evolve their own solutions.

The unsuitability should not be put off tackling work. Standards improve with practice and first results can be surprising. Bold use of colour helps and writing is best avoided wherever possible. Transparency materials can be excellent for tracing so, initially at any rate, original art work is best confined to paper, then traced on to the transparent material. This principle can, of course, apply to art work other than your own.

A light touch is indispensable for work of this kind and lines, in particular, though consistent pressure is also required if lines are not to look like shadows of sub-standard string. Pencil and markers should be firmly capped when not in use.

Broader markers are best used for solid colour work. Medium "fine" nibs will answer for general purposes but fine points are preferable for writing and, in my view, for cross-hatching also.

Drying time varies according to the materials involved, but it is usually measured in seconds rather than minutes and smudging can be avoided with a little care.

Now to the transparency materials. They are of six types. Characteristics are as follows:

Acetate: The material most com-

monly used for the job commercially. It is available in rolls and as cut sheets, usually measuring 10 in square, the sheet material being thicker than that used in rolls. It is strong, can be used again and again and apart from a slight curling (easily overcome with a card mount) is hardly affected by heat.

Special pens and markers are needed; these are spirit-based (described as permanent) and water-based (described as erasable). It is possible to obtain plastic lumps that will etch the surface of the acetate. Wax pencils may also be used but the substance is too dense to allow the transmission of colour.

Requires careful handling to avoid finger-prints. Images may be cleaned off with trichloroethane or spirit. Cost: around 25p a transparency.

Acrylic: Marketed under the familiar Perspex label and obtainable in a variety of sizes and thicknesses. It is strong, rigid, clear, heat resistant and is easily cleaned off for re-use. Special pens and wax pencils are necessary for inscription. It is not an easy substance to work with, but once mastered it is excellent for model-making and other displays for the classroom. Prices vary but it is undeniably expensive.

Cellulose film: Marketed under the name Cellofilm and obtainable either in rolls or in sheets. Can be inscribed with any fibre-tipped pen whether the ink is based on water or spirit. Ball-point pens and crayons of the type used for writing on glass may also be used. Images are permanent but optically the material is not good. There is also a tendency to curl but this can be easily overcome either by placing a card mount or simply by projecting a sheet of acrylic over it for protection. It is cheap (about 1p a sheet) and so easy to use that even young children can produce their own transparencies.

Polyester: Not unlike acetate in use and with similar marking potential. Strong. Used X-ray film sheets can be stripped and pressed into service although here there is a faint

tinge of blue in the material. Cost: up to 4p a sheet.

Polyvinyl chloride: Not really very suitable, although it is marketed as appropriate. The surface is hard and not all specialist pens will leave a mark. Moreover, it melts at fairly low temperatures and heat causes a rippling effect. It is cheap, however, at 3p a sheet.

Tri-acetate. Like acetate but rather more stable. It is affected by moisture and water-based inks must be regarded as permanent. More liable to curl than acetate sheet and, at 6p, rather more than twice the price.

Some last tips: specialist dry transfer lettering is marketed for use with overhead transparencies, but is sometimes difficult to remove so they are best restricted to permanent requirements. On most materials it is difficult to achieve an even shading of large areas so other colours, cut and fastened with adhesive (transparent self-adhesive film is available for this purpose), red or blue.

Complex subjects can be explained simply with the use of several overlays. Alternatively relevant areas are shown, either with masking tape applied to the material or by using "dodgers" similar to those used by photographers in enlarging (appropriate shaped pieces of card with wire handles) which can be moved around at will.

Next week an article on the making of animated transparencies will appear on these pages.



Safety and science

by Frank Anstis

Safety in the Science Laboratory. A colour filmstrip/slides set with cassette and lecture notes by Anna Armstrong and Eric Deeson. Diana Willie Ltd, 3 Park Road, NW1. Filmstrip and notes: Full frame £3.50. Half frame £3.00. Cassette £3.00.

This pack provides a useful outline of the hazards which arise in school laboratories, where quite simple warning actions can lead to accidents of unpleasant proportions.

The filmstrip is a reminder to teachers of their responsibility for the health and safety of their pupils and ancillary staff. Any material effectively emphasizing this responsibility is welcome, and as this package also clearly points the way to good laboratory practice it is doubly welcome.

Many experienced teachers will have memories of accidents which could have been prevented, and many more will be able to recall

accidents which were only narrowly averted. Teachers have a major role to play in maintaining a good record of safety in their laboratories and it would be most helpful if the programme of slides and cassette could be widely distributed for discussion in schools, colleges, education and teachers' centres.

The accompanying notes and cassette recording take a radical approach to the programme, allowing a flexible use of the material either for a teacher's talk to a larger group.

Having read a number of both notes and pamphlets on safety in the laboratory, my impression is that this particular programme is one of the most effective yet devised. Any action taken to remove such potential hazards commonly encountered in a laboratory could prevent a serious accident and the cost of such prevention is negligible.

Question of emphasis

by Paul McGee

Revision Course in O Level Mathematics (Electric, traditional) by P. R. Wallis, £14.95 plus 20p postage, five or more courses post free. Schools £4.08, booklets 50p. Revivette Productions, 17 Ludgate Avenue, Kidderminster, Worcs DY11 6JP.

The course consists of a 33-page booklet and an 80-minute cassette to which the student listens while following the notes in the booklet. The cassette is used to give longer explanations than would be feasible in the text. The course covers 21 topics that occur in most traditional O level mathematics syllabuses.

It is not entirely clear at whom the course is aimed since there is no attempt to cover either the topics which weaker candidates find difficult or those that prevent the able student from reaching the top grade. Some sections, such as the treatment of the derivation of the area of a circle, are unnecessarily large and cumbersome.

Some examples are badly chosen to demonstrate the technique, for example, finding simultaneous equations to solve a question about the number of consecutive integers. This can be solved more easily and more naturally using one variable. It would be a better basis for posing questions about the product of two consecutive numbers.

Aids survey

The National Audio-Visual Aids Centre (NAVAC) publish a survey of equipment. Called *Equipment for Audio-Visual Aids* it appears around July, the current issue is dated 1975/76. All the items mentioned have been tested by NAVAC.

The survey is free, but a large (9in x 11in) stamped addressed envelope would be appreciated. Write to NAVAC, 254/256, Belsize Road, London NW6 4BY.

BISFA, the British Industrial and Scientific Film Association, have set up a new audio and filmstrip group which will be giving a one-day seminar in London on February 24.

There will be presentations of filmstrip and slide-tape programmes. BISFA, c/o 6 Devonshire Close, London W1N 1LE.

Most mathematics teachers surely deplore the use of such rules as "change side, change sign", the ambiguous use of "cancelling" to mean either reducing a fraction or subtracting the same quantity from both sides of the equation, and the intermittent use of "cross multiply".

A more serious fault is the poor standard of presentation, especially the total absence of the conventional signs which show whether a statement follows from what has gone before or is true for some other reason. Explanations are skimpy and too many answers are given in units or, even better, complete sentences. This is a common source of error at this level and should always be discouraged.

The section on calculus is much harder than the rest of the course and the explanation of the derivation of dy/dx is unsatisfactory. In the geometry and trigonometry section there are three annoying cases where the diagram is at the bottom of the page and all the working is on the other side. Poor explanations are given for rejecting unwanted roots of quadratics and the only reason given in detail is wrong. Also surely O level candidates mention that $(x-3)^2 = 0$ has the answer $x = 3$ twice or five some statement about coincident roots.

JAN ISSUE
ADAM SMITH'S
Oil Change in Scotland
NEWMAN MAGAZINE
British Arms for Sale
PETER WARDLE
Television's Pioneer
RAY ALDEN
Projecting the
Laser Disk
LES WILSON
Prison before Trial
The Illustrated
LONDON NEWS
CONTAINS
LEADING
MONTHLY
MAGAZINE

Oceania notes

by P. K. Boden

Notes to accompany Oceania Geography Wallcharts, series No C 123-129. Educational Productions the THES, 7th November, 1975.

After publication of the review of wallcharts, £5.00 for the set of 36 charts, we were informed that notes were available with the charts. This review should be read in conjunction with the review published in the TES, 7th November, 1975.

These substantial booklets are published in the same format as those which usually accompany filmstrips. The first eight pages of each of the eight booklets are the same. They present a general introduction to Oceania. The potential advantages of geographic studies in Oceania are pointed out and helpful suggestions made about the use of photographs for study purposes with reference to both organization of content and style of pupil learning. A helpful matrix indicates possible thematic as well as regional studies.

Each booklet then gives an introduction, in greater detail, to the country which is the focus of study of a particular set of photographs. Following this, there is direct description and amplification of the scene photographed which explains the meaning of the shot. Within the section of the notes devoted to one shot, additional contextual information is also printed on topics related, but not central, to the frame itself, along with a section headed "Teachers' guide and things to do".

The suggested activities here relate to the pictures themselves but also involve use of other resources and texts. Among the activities are sketching, model making, mapping, graphing, descriptive writing and study of other books.

For example, in relation to Tonga, one page, on situation and physical features, precedes a page and a half on the history of the country, and a half on the culture. The notes on Nuku Alofa, the capital. Additional information is on tourism, and "things to do" involves studying coral formation; Tangatapu, the island on which the capital stands, is a volcanic island. Another suggested activity involves considering diffusion of ideas—how did rugby football come to be played in Tonga?

The end of the booklets have a key word summary. Teachers should welcome booklets offering teaching ideas as well as explanatory information. The booklets help to make the wallcharts an effective classroom resource.

Sounds 76

A school project which combines talks, films and demonstrations with the normal curriculum will take place at Blackwood Middle School from January 17 to 23. The theme is "sounds", and the list of events and exhibitions is impressive.

There will be musical instruments of all kinds, from early stringed instruments through Hungarian to a demonstration of some used in stage productions by the Royal Shakespeare Company. Investigations of tape recording, radio ham techniques, electronic music, sounds of space and even a synthesizer bring the events up to date while musical boxes and a Barrel Organ go back in mechanical time.

The human voice will be explored through singing, poetry, sound-making and speech, sometimes combined with tape recording to produce different effects. Many events give opportunities for participation: live broadcasting to Sweden is one possibility, making electronic music another.

Among the film subjects there will be brass bands, steam railways, theory of sound and production of gramophone records. The *Miracle Worker* will also be shown. This is the story of the deaf mute Helen Keller and how her teacher, Anne Sullivan, showed her the meaning of sound.

"Sounds 76" has been organized by Brian J. Holmes, head of curriculum at Blackwood Middle School, Sreely, West Midlands.

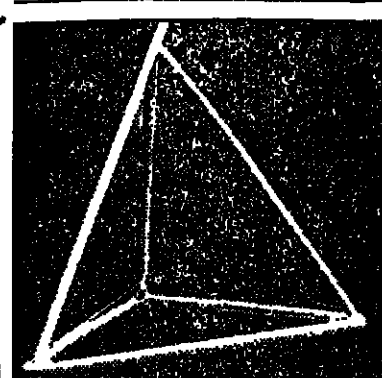


Fig 1

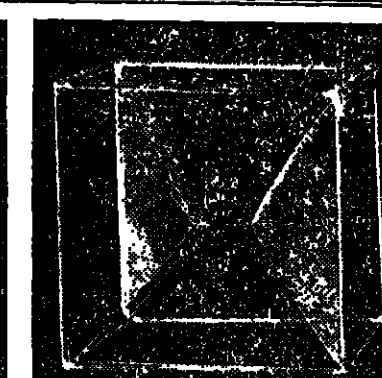


Fig 2



Fig 3



Fig 4

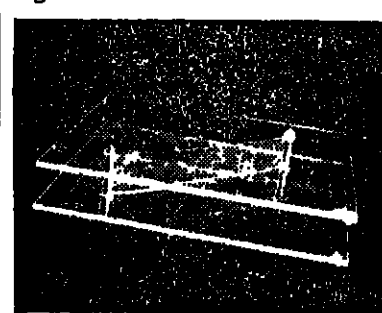


Fig 5

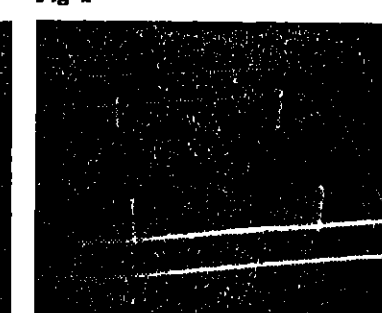


Fig 6



Fig 7

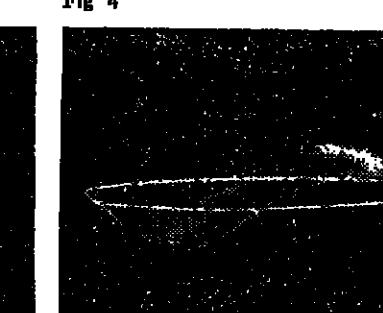


Fig 8

Forever blowing bubbles

by Cyril Isenberg

Soap bubbles fascinate children. They provide an excellent means of explaining and demonstrating basic scientific ideas to secondary school children, and of giving primary school children, for example, an appreciation of three dimensional shapes and surfaces.

Soap films have a considerable advantage over solid models. They give rise to many different surfaces, both curved and flat, and to bubbles of varying shapes. The shapes can also be altered by touching part of the film which breaks a surface and generates a new configuration enabling the pupil to explore geometrical shapes.

Spherical soap bubbles and soap films are composed of a thin surface containing water and soap. In the case of the soap bubble the surface is a thin spherical shell enclosing a volume of air. A careful examination of a soap film, or bubble, will show that there are coloured patterns in the film, which are similar in origin to the colours produced by oil stains on a road.

It is not generally known that it is possible to produce some most unexpected soap films and bubbles with the aid of closed frameworks. Children can gain an insight into the science of soap films, and basic scientific principles, by performing simple soap film experiments which are no more difficult than blowing bubbles.

The demonstrations require only the simplest of apparatus, frameworks and soap solution. The frameworks may have any size and can be constructed using any material—wood, plastic, metal, etc. Alternatively they can be purchased commercially. Cochrane of Oxford Ltd, Leffeld, Oxford OX8 5NT, sell sets of five frameworks.

For demonstrations to a small number of students a bowl of water mixed with half a cup of washing-up liquid will provide a suitable soap solution. For large audiences a standard plastic dustbin of water mixed with two or three containers of washing-up liquid is convenient. Any brand of washing-up liquid can be used.

Primary School Demonstrations
Unusual surfaces can be produced by dipping a framework into the soap solution. It is possible to use frames of any shape, but I shall consider two frameworks with simple, highly symmetrical shapes—the tetrahedron and the cube. These are shown in Figures 1 and 2.

After the tetrahedron is withdrawn from the soap solution the surface shown in Figure 1 is produced. This surface contains triangular planes of soap film. Each triangular plane begins on an edge of the framework. All the planes meet at a point at the centre of the tetrahedron.

From each corner of the tetrahedron there is a line, formed by three intersecting planes of soap film, terminating at the centre of the tetrahedron. The planes forming the lines are equally inclined to each other—making angles of 120° with adjacent planes. The angle between lines is always 109° 28'.

The soap film produced by the cubic framework, is shown in Figure 3. The surfaces do not meet at a point at the centre of the cube but in a square-like film. This square-like film is always parallel to a face of the cube. It can be made to change direction simply by blowing on to the film.

Soap films will usually last about 15 to 20 seconds before breaking. With a dry finger, or rod, one can break one or more of the surfaces in Figures 1 and 2 and generate new surfaces.

In these instances the soap film has provided a simple medium for producing three-dimensional shapes and for giving children an appreciation and feeling for three-dimensional geometry.

It is possible to produce bubbles that are not spherical. The shapes in Figures 1 and 2 are produced and the framework dipped into the soap solution so that it is only partially submerged. In this way some air is trapped inside the framework. On withdrawing the framework a bubble will form inside, with a shape similar to that of the framework. These are shown in Figures 3 and 4.

The bubble is joined to the framework by surfaces of soap film. As these surfaces are progressively broken, the bubble becomes increasingly spherical. Finally, when the bubble is no longer attached to the framework, it will be free and spherical in shape. It will thus be free to float away from the framework.

Primary school children enjoy performing these experiments and observing demonstrations. Visually they are attractive and colourful, and give the student a greater appreciation of geometry. The pupil can experiment with the shapes of the surfaces and bubbles by building different frameworks.

Secondary School Science
Many scientists have been attracted to the study of soap films and bubbles. Isaac Newton and Charles Vernon Boys are probably the most widely known. Boys's little book, *Soap Films and the Forces which Mould Them* has been popular among school children since the beginning of the century. The scientist who first discovered the surfaces and bubbles produced by frameworks was the blind, nineteenth century physicist Joseph Plateau, but unfortunately his work has remained largely hidden away in research books.

The surfaces produced in Figures 1 and 2 have the property that they have the smallest possible area contained by the edges of the framework, once they are at rest. The advanced sixth form student will appreciate that this result is the consequence of a more general result known as the minimization of the Helmholtz free energy. This also explains the shape of the bubbles in Figures 3 and 4. The colours that occur in soap films are due to a phenomenon known as the interference of light.

The smallest area property of soap films can be used to solve mathematical problems. Consider two parallel clear Perspex plates joined by two spacers as shown in Figure 5. If one dips this system into the soap solution, the soap film produced inside the plates has the shape of a tape, beginning on one edge and ending on the other. The area of the film changes with the length of the tape. This will have its smallest value, as shown in Figure 5, when the length is in the shape of a straight line. Thus the soap film has solved the problem of the shortest distance between two points.

More difficult problems can now be attempted. For the shortest path linking three, four, or more points, one has to place spacers at appropriate points between the plates. The soap film formed, after withdrawing the system from the soap solution, will automatically take up a configuration with the shortest possible length.

Consider, for example, the problem of finding the shortest length of road joining four towns at the corners of a square. Figure 6 gives the shape of the roadway. There are two intersections. Each intersection point is produced by three intersecting roads. The angle between any two roads is 120°. This is a consequence of the general property of intersecting soap films discussed earlier.

An appreciation of the vibrational motion of membranes and drums can be obtained by producing a soap film in a large ring. The soap film can be made to vibrate perpendicular to the plane of the ring with a large oscillation by vibrating it at the appropriate frequency. This gives the fundamental mode of vibration, Figure 7. Higher modes can be obtained by oscillating the framework appropriately. The first harmonic is shown in Figure 8. The amplitude of vibration of the soap film is much greater than the drum skin, and easily visible.

D'Arcy Thompson in his book *On Growth and Form* points out that the skeletons of some microscopic protozoa, known as Radiolarians, have shapes similar to those of soap bubbles trapped in frameworks. They are found on the ocean bed. Compare the skeleton below, *Callitritia agnesae*, with Figure 3.

The properties of soap films link together a number of scientific fields: physics, mathematics, chemistry, history, technology, and even biology by simple and attractive demonstrations. It is my hope that they will be more widely used in the teaching of science in primary and secondary schools.

Dr Cyril Isenberg works at the University of Canterbury.

Coaches, canals and romantic notions

by Frances Farrel

Pictorial Charts Educational Trust. Three charts plus notes. £1.08 each, including VAT.

The Industrial Revolution—Transport. This chart, covering the years 1760-1850 is an attractive composition of engravings and a photograph. Canals and shipping, stage coaches, pack horses and the railway are featured, with a close comparison of land-carrying capacities. The teachers' notes are full and detailed, providing plenty of background for discussion.

As the chart is illustrating methods of transport it is, perhaps, unfair to wish for a map showing canal and rail routes, but this would make a useful addition. Great Britain's canal trade routes would make another interesting map. A complementary wallchart might be the answer.

Marriage. It must be a good idea for children to think beyond the romantic ideas of marriage. This chart examines the negative side with an almost depressing thoroughness. Responsibilities and stresses are discussed under the headings: In-Laws, Love and Sex, Romance, Love, Children, and Security.

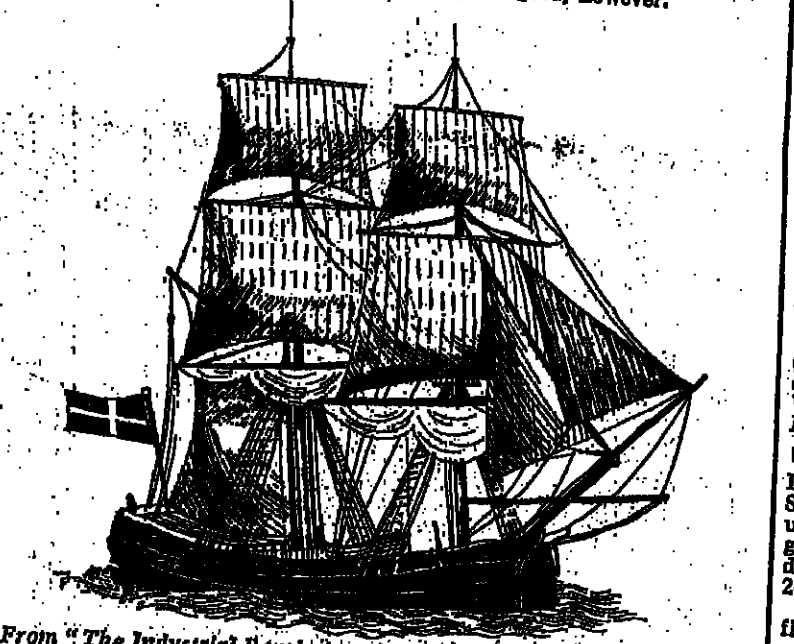
Romance is reassessed through a disconcerting table of reasons for marriage given by citizens in a UNESCO survey. At the top of the list for women was "to get away from home" and for men "to affirm masculinity". Other royal illusions are shattered under the appropriate heading.

The chart is arranged as six "situation" photographs related to the six topics, with statistical and back-

up information given on the reverse side so that the chart could be cut up and used as work cards. The background, look as discouraging as the divorce figures. The teachers' notes are mainly statistical.

But the *Marriage* chart offers an alternative to the persistent image of love, sex and marriage as nirvana. It could provoke thought and discussion.

New Stone Age People in Britain is the sort of wallchart which has been putting children off early history for years. The layout is confusing and the drawings are dreary. One unnecessarily large corner taken up with a map showing Stone Age sites. Another has a photograph of a cave with a drawing of a deer and a map of the area. It gives no idea of scale. The notes are good, however.



From "The Industrial Revolution—Transport"

TALKBACK

Ideas,
argument, experiences,
research

Bringing up baby - again

Don Ryder

Children with incomplete dominance of the hand, foot, eye and ear of the same side often have severe reading, writing and spelling problems. By establishing and reinforcing this dominance, which most of us acquire in infancy, we can enable children to overcome their difficulties, minimizing the remedial learning (and teaching) and/or making it far less frustrating.

At our comprehensive school children with these difficulties have daily structured exercises to provide the development omitted in infancy, thus creating, with the dominance, the attendant ability to interpret symbols.

I began two years ago when my colleague, Rod Derry, went to Philadelphia to see Glenn Doman and Carl Delacato, who help brain-damaged children to recover and dyslexics to read, write and spell.

What Rod Derry learned there convinced me that this was a system that could benefit our pupils. However, as the Doman-Delacato system is designed for parents to operate, we both knew it would be well-nigh impossible to persuade all the parents involved to undertake the tasks we had in mind for them. So we decided to do the work ourselves—if the Delacato tests proved positive with the children—those with severe reading, spelling and handwriting difficulties, with reading ages 5 to 8 years (Schonell).

In every case we found incomplete or mixed dominance: children right-footed and left-handed; ambidextrous; preferring the left hand for some skills and the right for others; unable to crawl properly, etc. We were astonished at the results.

It suggested that we should teach the exercises in a mass-training scheme. Rod agreed, insisting that

parents be involved too. The head at that time, A. W. Northen, supported us then and at the parents' meeting that followed.

We told the parents that lack of objectives and the inability to interpret symbols easily. We asked the parents if they could throw any light on the lack of development that we had found. There followed a tale of known brain damage; of never crawling; of walking early;

of difficult births. The long and astounding list confirmed our findings and the parents agreed to support us and supervise exercises at weekends and holiday times.

To simplify matters, the whole group, regardless of individual differences, did all the programme. The first stage of the work was to assume a "sleeping baby" position—prone, head turned to face the raised dominant (ie, writing) hand and the leg raised with knee bent on the same side. Progression along

Helping children with reading difficulties
Links towards an open college
British teachers
in South Africa

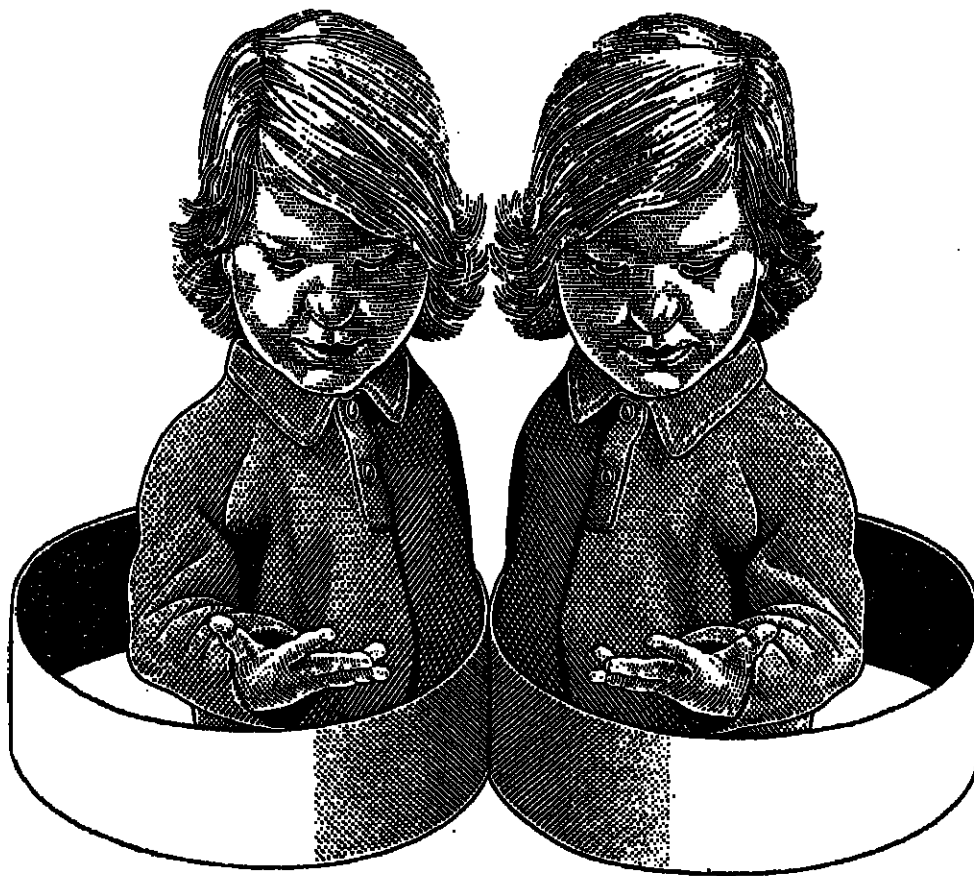


Illustration by Bill Sanderson

and included sight and hand practice. Stage four was the quiet and longest, reinforcing of the writing-hand side, using plastic balls, marbles, post-it notes, bagatelle, dominoes with hand and foot, one-eyed juggling and one-eyed listening—much more.

In four months or so, the average gain in reading age was 6 years; one child had gained 8 years. Results in the following year appeared to be even better, but did not finish the testing, as all the work is done out of lessons and we no longer felt we were "experimenting". Several years have since overtaken their classmates who had been regarded as functionally adequate and not requiring treatment.

Rod Derry has just re-visited Philadelphia and been to the L1111 School, having read the article about its Doman-Delacato programme this year. It has many more determined in publicist system over here. So far we have spoken to any interested people including nurses, doctors, psychologists; especially groups was the keen interest of the teachers at Corby teachers' centre this year.

Now we are hoping for official support for a large-scale experiment. For the price of a few plastic balls, some cheap toys and paper, should be easy to set up, even in present economically difficult plight. We think it could be a wonder for everyone concerned with the teaching and learning of reading.

A large successful demonstration would help us to gain publicity. Our belief that most of our reading failures stem from the home is not the school. We should be able to see babies taken from their parents and see face down on the floor, and see a clean white wall leaving to read could go to where it belongs to the teacher who could do it best, in the prime school.

Each stage lasted three weeks regional variations combined with a Mode 3 element (assignment units could be taken as part of the final assessment), but also because cuts in the educational service are making it increasingly difficult for local centres to offer a comprehensive range of courses. A national scheme of referrals would increase efficiency and reduce wastage.

The advent of the open college should be pursued as an agency for improving the quality of adult education on a national scale, while providing true equality of opportunity for all those people in our society who are seeking new educational goals.

G. A. Rowlands is head of community studies, Barnet College of Further Education.

Words of advice

Sir,—This letter is by way of advice for any teacher who may consider Africa, which, it has been suggested, may recruit in Britain.

One or two-year trained teachers (even those trained before the introduction of the three-year course) will not be recognized and will be unable to teach in South Africa.

Any salary offer in Rand must not be an equivalent.

Housing is expensive particularly in urban areas. True, you get more for the equivalent in United Kingdom sterling, but cheaper houses are just not available. Renting is also expensive.

Having registered in South Africa it is still difficult to obtain employment. There is no official passport. Government list issued which you where to look. You have to go through the telephone directory to contact individual schools seeking employment.

Salary scales are discriminatory against women. In bonus schemes, women only receive 50% of the amount given to their male counterparts.

Should teachers still wish to go to South Africa to teach they must have documented evidence of a legal training, all teaching post birth and marriage certificates, school certificates, all in English and certified by a Justice of Peace or a commissioner for oaths.

I have also found a lack of knowledge of the English system in school groups and such teachers as junior/secondary trained, as a teacher must translate their own knowledge. Again, in my experience, a teacher is offered a post it will be a comparable position as in the salary scales.

It would seem that the South African education authorities are mainly in the Transvaal, consider qualifications inferior to theirs. There has been refusal to register because she is two-year trained, though this was the maximum statutory training when she was a college and she has 17 years' experience.

J. V. STEPHENS (Mrs.), 404 St. Tropez, 62 Plain Street, Sunnyvale, Pretoria 0002, Transvaal.

Following the great leap forward

Alan Stewart

examines some schooling issues in Chicago

The results of a national Gallup Poll just carried out show widespread ignorance and confusion among the American public regarding the work of their local boards of education. Yet these boards are the key policy-making bodies on which rest the whole basis of community involvement in United States public education.

Dr Harold V. Webb, executive director of the National School Boards Association, said the study results are "ominous" for those who believe in continuing the policy of local control of schools through citizen commitment. This ignorance on the part of parents is indicative of a wider malaise in American elementary schools. "Education has lost some of its aura lately," says Dr Roger Bardwell, acting superintendent of District 59 in Arlington Heights, a suburb of Chicago. "We desperately need more involvement again to keep the system healthy."

Dr Bardwell has seen community involvement working at its best when he was superintendent of the district in the mid-sixties, the time of the "great leap forward" in American education. Recently he was asked by the school board to return from his job in the business world to take control once more. He steered the district through a time when the Russian Sputnik programme, the baby boom, a population shift to the suburbs, a chronic shortage of teachers and massive inflows of public money changed the face of American education. The one-room country schoolhouse to highly organized elementary schools making use of every innovation known to educators.

Dr Bardwell recalls that in those days professional educators thought they had a prescription for every ill. Government grants for gifted children programmes developed

into individually prescribed instruction for every child (ITP) open-plan schools and learning centres. District 59 implemented all these schemes to a greater or lesser extent, pioneering the individual school learning centre idea by incorporating one into every school. The district proved progressive and successful in improving parent-teacher involvement by establishing a School Community Council in 1967, to provide communication between parents, educators and the school board.

District 59 serves an area of about 25 square miles, which takes in four communities and 60,000 residents. Twenty-five miles north-west of Chicago, the district includes 16 elementary schools taking children aged between five and 11, and five junior high schools for 12 to 14-year-olds.

The 11,000 children enrolled in the schools are taught by over 500 teachers, who include many specialists trained to work in highly organized remedial and emotionally handicapped programmes. The complex education system is guided and coordinated by an entirely volunteer, seven-member, elected school board.

Children enter the district schools in the year of their fifth birthday and attend kindergarten (first-year infant school) for half a day, finally leaving junior high for a full day in the district at 14. All elementary schools have some kind of parent-teacher group run by involved parents, but these groups gradually become less effective as junior high. As a PTO president, Carol Wirth, says: "These groups are basically volunteer organizations dedicated to funding extra cultural arts programmes which improve the welfare of the kids, and which are staffed by volunteer mothers."

Many teachers feel that some dehumanizing of education took place after the Second World War when millions of Americans migrated from rural areas to the cities and out to the suburbs. In the one-room schoolhouse the teacher was often counsellor and friend to generations of children. In the new junior high schools, that take nearly 50 per cent of America's youngsters, large impersonal and departmentalized buildings destroy both the teachers' and the students' identities.

Many of the difficulties facing District 59 are a result of a situation completely the reverse of that of the sixties. The residue of the baby boom is now going through junior high, and enrolment in kindergarten is steadily declining. Faith in technology

has been eroded by inflation, then recession. At the same time government funding is drying up. The population in the suburbs is stabilized. The lack of mobility has extended to a crowded teaching profession which is split between older, more conservative teachers who have seen the dynamism of the sixties fail to transform education, and younger, liberally educated college graduates striving to make their mark.

Because of the current concerns in American society, both state and federal legislators respond almost too precipitately to voter concerns about subjects like sex, drugs, religion and students' rights. Consequently District 59 often has to field government directives like badly pitched balls. Dr Ervin Stevenson, assistant superintendent for instruction, has to interpret legislation like Section 27-17 of the school code, which states that not less than 16 clock hours of safety instruction will be taught at all grade levels each year. Or a recent one on drugs and alcohol that requires 10 weeks a year for kindergarten children. "If we implemented all these directives," he remarked, "there would be no time left for teaching anything else."

Visiting educators from Britain would find the children of District 59 articulate, uninhibited and contented. They would be impressed by the numerous channels of communication between them and the teachers, particularly at elementary level, and the relaxed, informal environment of the classrooms. They would be less impressed by the amount of structured academic instruction in progress, and might feel a sense of frustration that the teachers appeared unable to take advantage of their rapport with the children to instil better work habits. As they sat down with an articulate group of parents, teachers and administrators they would soon begin to understand the basic paradox in American public education in the mid-seventies—how to reconcile the teaching of academic skills with the social development of the child.

A recent assessment of district parents' needs showed that their main concern is still the teaching of the three Rs. They are disturbed by the fact that at least half of the children read below their expected grade level and that tests of basic skills show a decline from previous years. They are confused by an apparent lack of teacher accountability, and claims by faculty that tests are poorly administered and sometimes even inappropriate to the students' needs. What is the function of the board of edu-

cation in this situation? The board are a policy making body of non-professionals who, in Dr Bardwell's words, are supposed to "coordinate and structure" the education of the district. But it is only with public involvement and interest that the board can maintain cohesion and work as a team. When parents and other citizens feel that they are helpless to influence events they lose interest, and the situation shown by the Gallup Poll results occurs. In District 59 the symptoms show when major decisions appear to be taken in a crisis, where there is over-debate of the emotional issues and unconstructive statements are made by prominent individuals. In this climate the influence of moderate opinion gets less and less while that of vested interest groups increases. As Dr Webb said: "Public opinion can easily be swayed by those who might wish, for whatever motives, to wrest from school boards control of aspects of public education."

To see "progressive" education at its best, British visitors might visit a new junior high school where open plan teaching brings unique benefits to 12 to 14-year-olds. The school is built around four-class classrooms called team rooms, which provide a home base for a group of about a hundred children. They are organized and run by teams of four or five teachers, who coordinate their programme.

After two years at the new school, aptly named "Friendship", youngsters drawn from conventional junior high schools in the area seem happier, less aggressive and more able to work and live together. The principal, Robert Brower, has built up a largely invisible, but effective, system of planning and consultation which makes the team room approach work well. "The teachers have to learn to work closely with their colleagues," he said. "But we keep departmentalization to a minimum and stress the common factor as being the child. Junior high schools don't have to be impersonal places."

Brower's final comment seems to sum up what everyone in the district is striving for—making education a more personal and likeable experience for the child. Two problems make this goal difficult to achieve. The first is striking a fair balance between social development and academic achievement; the second, obtaining enough public interest and involvement to do this. The school board has a major role to play. "What is needed now is for us to let parents know we're here and what we are doing for them."

Playing pilgrim

Beatrice Spencer Kleppner
describes an historical
reconstruction which she carried
out with students in New England

I cannot help envying history teachers in Britain, who have easy access to the slender remains of the past. Such tangible reminders of historical events are rare in America, and history can seem remote. Perhaps this is why my instinct is to grab any opportunity to make history come alive. Undoubtedly it was obedience to this instinct which led me to shepherd a dozen seniors (sixth-formers) in an elaborate masquerade.

Our project was triggered by a visit to Pilgrim's Plantation, a re-creation of the Pilgrim settlement not far from the original site in Plymouth, Massachusetts. The plantation has a fundamentally "hands on" philosophy; the meticulous copies of seventeenth-century cottages, furniture, clothing and tools are intended for use rather than mere display.

One of my students asked if we could return to live as Pilgrims for the week of our anniversary. The plantation agreed; they would lend us equipment, logistical assistance and moral support. For our part, we had two months until intercession to learn as much as possible about life in the settlement. Governor Bradford's diary, still the major resource after 350 years, became our bible.

We looked for parallels to connect us with the Pilgrims, but they were hard to find. Bradford's "hideous wilderness", starvation, the threat of Indian or pirate attack had vanished. Not even disease, which halved the colony during the first winter, worried a few. We could not escape the sense of incongruity, but our spirits were high, for we were engaged in a common enterprise.

Our first stop was the costume workshop. The transformation as we put on Pilgrim dress was startling. The long skirts and heavy capes slowed movement, while the white cloth and cold forced us to wear woolen hats. The slow stride with yoke and buckets, the unfamiliar gestures of hitching a skirt while walking over a puddle or holding back an apron near the fire, imposed a decorum. Life without soap is hard on aprons, and by the end of the week they were soaked with holes. Nevertheless, the decorum remained.

Curiously, in all our preparations no one

had raised the question of governance. Perhaps this reflected a belief I have heard expressed in class, that government is fundamentally unnecessary for people of good character spontaneously cooperate. Apparently the Pilgrim Compact I decided to forgo any role of authority; if the class needed leadership it would have to look to itself.

Although we came armed with some knowledge of the Pilgrim menu, open hearth cooking cannot be learned from books. The plantation curiously spent us their expert in Pilgrim-style cooking, Mary Capp. That first morning she taught us how to bank the fire for ember and for flame, the use of the hoe, the spider and the skimmer, how to bake bread in a Dutch oven and wash pans without soap.

Our first meal, chicken stew, was disappointing. The Pilgrims passed the winter without fresh vegetables, potatoes, fruit, sugar or honey. Even though we had carefully planned the menu, the actual encounter left us craving for the variety of a twentieth-century menu.

When we went to bed some of us wondered whether we could finish the week. Crowded together on the floor, cold and hungry, we could hear the boards of the cottage rattle and feel the winter wind. Yet there was pleasure in being there. The sounds of the house and the flickering light seemed to come from a distant, more peaceful age.

I could not sleep for worry. House fires were common in the seventeenth century and our thatched wooden cottage could burn as quickly as its predecessors. I turned over in my mind my motives for bringing the group. Fundamentally it was to cultivate the enthusiasm which had made me take root in my class. There were other more public reasons. We had an unusual opportunity to learn about our past. Perhaps some of my students would develop a taste for the scholarship which animated the plantation.

Under Mary's tutelage we prepared a few staples—corn pudding, corn bread and bannocks. Our single feast was a turkey turned on a spit for 24 hours; to our chagrin, the centre was still raw. Mary had discovered an early account using coriander to leaven bread, and we experimented with it. Even though we produced a tart and gritty, but "first" for the plantation and we counted it among our successes. However, failures were numerous and all our cooking suffered from grease, grit and soot.

In the main we kept to our resolve to occupy ourselves with seventeenth-century activities. The cold and flickering light made embroidery difficult, but reading was barely possible. Most often it was Bradford's history we read. We might be antiques playing

roles in a reconstructed village, but here was hard evidence that 350 years ago a more serious drama took place. We thumbed through the book searching for clues to connect our class with the past. Although domestic details were important to us, they were not of interest to Bradford; what concerned him was the social and political welfare of the community.

Our headsick tale repeatedly returned to Bradford's account of the settlement, from its precarious first winter through three decades of adventure, success and eventual decline. Bradford's problems were incessant. As well as famine and epidemic, there was an oppressive debt to wretched London merchants and the continuous threat of Indian hostility.

In spite of the cameraderie there were irritations: our attempt at seventeenth-century realism was too successful; we fished and we snailed. The act of crowding at the hearth prevented everyone from being warm simultaneously. We relied on natural courtesy, but that was thin during the week. The Pilgrims were quick to anger. Feeding the fire through the long cold night left by default on three public-spirited members. We learned to feel for the Pilgrims; no wonder occasional discord broke out.

We put much effort into trying to achieve a seventeenth-century state of mind. This was most successful during sessions of role playing. Each of us chose an actual role within the community. The game was to grapple with a real difficulty faced by the Pilgrims, while remaining faithful to our character's point of view. In one case at least, the manner of Wessagusset, the outcome was disturbing.

Wessagusset was the settling place for a band of Englishmen who lacked the Pilgrims' talents and spiritual force. They ran short of food their first winter and stole corn from the Massachusetts Indians, who demanded the thieves be punished. The settlers reportedly obliged by hanging a sick but guiltless old man. However, the stealing continued and the Indians planned to put an end to this nuisance. The settlement, now desperate, sent to Plymouth for help.

What to do? On the one hand we were morally obliged to aid Christian Englishmen in a conflict with heathen savages. Further, destruction of Wessagusset might encourage an attack on Plymouth. On the other hand, our relations with our own Indian neighbours, the Wampanoags, were excellent. An attack on the Massachusetts could end our friendship and precipitate a general Indian war.

As we argued, the difficulty grew more complex. For instance, we had to consider the feelings of Massachusetts, great chief of the Wampanoags, bound to us by treaty, and incidentally by personal gratitude for curing

his constipation. Massachusetts unexpectedly counselled us to fight the Wessagusset Indians. We were entangled in power politics among the Indians.

As we weighed alternatives, humanitarian considerations became subordinate to survival. Gradually the pacifists gave way to the strong-arm faction. We eventually decided to send Miles Standish to investigate and, if necessary, to take action. The game ended and we turned to accounts of these events to find out what had really happened. We were delighted to read that the Pilgrims had taken the identical course of action: Standish and a small band had been dispatched to Wessagusset with instructions to use their best judgment.

Once there, Standish decided on a show of force and shot three Indians on the spot. A few of us protested that this was not what we had intended. However, others appeared to justify the action. Although word of the shooting spread quickly, there were no reprisals. Instead, Indians throughout New England rushed to make treaties with white settlers. A minor military action led to undoubted diplomatic triumph.

The Wessagusset affair ended in peace with the Indians, but we were troubled by the brutal killings, and continued to argue alternatives. One student pointed out a larger issue at stake: we had recreated our nation's Indian policy in its infancy. Immersed in our role we had unwittingly repeated the steps that eventually led to the tragedy of the North American Indian. We fell silent, oppressed by the thought that these steps were inevitable, that even with the advantage of hindsight we could not avoid the tragedy. Past, present and future became momentarily confused and our masquerade assumed a weird reality.

The week had many elements of success. We passed it harmoniously, but some students interjected that they could not have continued without setting up formal rules. We had all learned a great deal about seventeenth-century life, and the students had dealt with primary sources rather than textbooks. And yet, I felt uneasy.

Will the students in some way build on their experience after the week is over? Moved to action by the week of telling whether the week will add up to more than a series of happy recollections. Unfortunately teachers rarely see the final results of their efforts; projects like this take time to bear fruit and the results are sometimes unexpected in any case. I think that we will all carry the episode as a permanent imprint.

Beatrice Spencer Kleppner teaches history at the Beacon Country Day School, Chestnut Hill, Massachusetts.

Closing the gap

G. A. Rowlands

At Barnet College of Further Education we are trying to build up a link between further and correspondence education which could lead on to the setting up of an open college.

There is little doubt that both systems of learning have their shortcomings. The part-time day or evening student in a college is to depend upon the dynamism of the group to which he belongs, suitable choice of syllabus and the personality of his tutor. A short absence can destroy continuity. Distance learning places too much emphasis on self-teaching with limited possibilities of group discussion.

At Barnet we feel certain that by combining both forms of learning we can achieve greater success. Add a further dimension of media production as used by the Open University, and even better results could be achieved.

Since 1971 we have offered Gateway courses to the Open University, study courses which have been linked to the National Extension College. These are offered alongside our traditional courses, and students who show interest are supplied with correspondence course

material at the lowest possible cost. They are invited by the class teacher to work through this, pacing themselves according to their own objectives and study programme, presenting assignments to him. The weekly sessions follow the pattern of the correspondence material. When the system works effectively the class becomes a lively exchange of ideas, with the tutor able to use his own expertise to supplement what has already been learnt.

The number of students following these courses has risen significantly during the past four years. Class discussions are better informed. There is a feeling of continuity which prevents drop out when a student is unable to attend class for several weeks. College resources like our library and audio-visual material provide a third method of reinforcement. This is a point which has been emphasised by local students who originally enrolled on a purely correspondence course but who now attend classes here.

National Extension College students from the south and east of England attend six Saturday seminars at this college every year. Though general sessions on study technique and literature have been successful, the overwhelming preference has been for subject tutorials. Last session 130 students attended seminars in: Gateway courses in literature, social psychology and science, English from O level to degree standard, history and economic history, sociology, biology (where laboratory facilities were welcomed), mathematics and degree psychology.

Within these small groups emphasis is placed on discussion among kindred spirits, with informed prodding from a correspondence or college tutor. Feelings of isolation give way to fresh confidence, because others share the same problems. The cost is lower, because seminars are non-residential, surely a major factor when comparing this form of education with the rising costs of summer schools. From the experience we have gained it is possible to recommend a pilot scheme which could lead on to the formation of an open college. Colleges like ours should join correspondence colleges and the media in providing common courses with common objectives in a limited number of subjects.

The further education college should provide the initial advisory service, general resource bank, contact and examinations centre. The correspondence college should be the central resource agency, able to recruit students on a national scale and offer the whole range of material available with its own tutors, but with the added advantage of receiving referrals from further education colleges unable to offer specific courses and, in turn, referring students to local and regional centres for advisory and counselling services.

Television or radio series would serve the purpose of supplementing courses, publishing schemes and ensuring that all the subjects have a common core. Such a scheme would have a better chance of success at present not only because of the greater flexibility of examining boards, which would allow for

regional variations combined with a Mode 3 element (assignment units could be taken as part of the final assessment), but also because cuts in the educational service are making it increasingly difficult for local centres to offer a comprehensive range of courses. A national scheme of referrals would increase efficiency and reduce wastage.

The advent of the open college should be pursued as an agency for improving the quality of adult education on a national scale, while providing true equality of opportunity for all those people in our society who are seeking new educational goals.

G. A. Rowlands is head of community studies, Barnet College of Further Education.

20/11/81 1:50



Music from the Schools Prom

The Times Educational Supplement has produced a long playing record album of the first ever Schools Prom. The album contains two records and is available now.

Featured on the album will be music—recorded live during the performance at The Royal Albert Hall—by The High Wycombe Music Centre Concert Band, St Anne's Chamber Ensemble, Southampton, Elmwood Junior School Steel Band, Croydon, Woking County Grammar Schools for Girls Orchestra, The Tabor Recorder Consort, Chelmsford, Kingsdale School Dance Band, London, The Darlington Youth Big Band, The Colchester Accordion Orchestra, Itchen Sixth Form College Wind Quintet, Southampton, The Brighton Youth Orchestra, The Pro Corda String Orchestra, Weybridge and the Teesside Youth Orchestra.

The double record album is available only from The Times Educational Supplement at £3.75 which includes postage and packing. To receive your album(s) please complete and send in one of the coupons below. We have provided extra coupons for other readers of this copy of The Times Educational Supplement.

*Within the United Kingdom only

To Miss Shirley Green, Room 256, The Times Educational Supplement, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 8EZ: Please send me Schools Prom record album(s) at £3.75 each. I enclose a cheque/postal order for £..... crossed and made payable to Times Newspapers Limited.

(Block letters, please)
Name
Address

Please allow 28 days for delivery
Payment must accompany order. We regret we cannot invoice

To Miss Shirley Green, Room 256, The Times Educational Supplement, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 8EZ: Please send me Schools Prom record album(s) at £3.75 each. I enclose a cheque/postal order for £..... crossed and made payable to Times Newspapers Limited.

(Block letters, please)
Name
Address

Please allow 28 days for delivery
Payment must accompany order. We regret we cannot invoice

To Miss Shirley Green, Room 256, The Times Educational Supplement, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 8EZ: Please send me Schools Prom record album(s) at £3.75 each. I enclose a cheque/postal order for £..... crossed and made payable to Times Newspapers Limited.

(Block letters, please)
Name
Address

Please allow 28 days for delivery
Payment must accompany order. We regret we cannot invoice

To Miss Shirley Green, Room 256, The Times Educational Supplement, PO Box 7, New Printing House Square, Gray's Inn Road, London WC1X 8EZ: Please send me Schools Prom record album(s) at £3.75 each. I enclose a cheque/postal order for £..... crossed and made payable to Times Newspapers Limited.

(Block letters, please)
Name
Address

Please allow 28 days for delivery
Payment must accompany order. We regret we cannot invoice

Classified Advertisements

Index to Appointments Vacant, Wanted and other classifications

Appointments vacant

Nursery Education	31
Primary Education	31
Headships	31
Deputy Headships Senior Masters/Mistresses	33
Heads of Department	34
Scale 2 Posts	34
Remedial Posts	39
Scale 1 Posts	39
Middle School Education	40
Headships	40
Deputy Headships Senior Masters/Mistresses	40
English	40
Mathematics	40
Modern Languages	40
Physical Education	40
Technical Studies	40
Other than by Subjects	40

Secondary Education	40
Headships	40
Deputy Headships Senior Masters/Mistresses	41
Remedial Posts	43
Art and Design	43
Commercial Subjects	44
Domestic Subjects	44
Economics	44
English	44
Geography	46
History	46
Humanities	46
Mathematics	46
Modern Languages	47
Music	48
Pastoral	48
Physical Education	50
Religious Education	50
Rural Studies	50
Science	50
Speech and Drama	53
Technical Studies	53
Other than by Subjects	54
Appointments in Scotland	54

Junior Sixth Form Colleges	55
Special Education	55
Headships	55
Deputy Headships Senior Masters/Mistresses	55
Scale 2 Posts	55
Scale 1 Posts	56
Independent Schools	57
Headships	57
Art and Design	57
Commercial Subjects	57
Domestic Subjects	57
Economics	57
English	57
History	57
Mathematics	57
Modern Languages	57
Music	57
Pastoral	57
Physical Education	57
Religious Education	57
Science	57
Speech and Drama	58
Other than by Subjects	58

Preparatory Schools	58
Headships	58
Deputy Headships Senior Masters/Mistresses	58
English	58
Music	58
Other than by Subject	58
Colleges of Further Education	58
Directors and Principals	58
Heads of Department	58
Other Appointments	58
Colleges and Departments of Art	60
Directors and Principals	60
Heads of Department	60
Other Appointments	60
Universities	60
Fellowships, Studentships and Research Awards	61
Colleges of Education	61
Teachers' Centres	61
Adult Education	61

Community Homes and Associated Institutions	61
Headships	61
Deputy Headships	61
Other Appointments	61
Youth and Community Service	61
Overseas Appointments	62
Administration	63
Local Education Authority	63
General	66
Educational Psychologists	67
School Health Service	67
Examiners	66
Ancillary Services	67
Miscellaneous	67
English as a Foreign Language	68

Appointments wanted

Educational Courses	68
Awards and Scholarships	69
Contracts and Tenders	69
Personal Announcements	69
Exhibitions	69
For Sale and Wanted and Postal Shopping	69
Holidays and Accommodation	69
Properties for Sale and Wanted	69
Typing and Duplicating	69

Nursery Education

DEVON
BARNES BARTON PRIMARY SCHOOL
Pole Park Road, St. Budaux, Plymouth
Required for a new purpose-built nursery unit to be opened in April 1976. Two qualified teachers, nursery training and/or experience in a nursery class or school setting. Salary £2,300 per annum. Applications should be sent to the Headmaster, Pole Park Road, St. Budaux, Plymouth PL4 8JN. Closing date 15th January 1976.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

Primary Education

Headships

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

BROMLEY
LONDON BOROUGH OF
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

CUMBERLAND
DALTON-IN-FURNESS C.E. OF S.
Dalton-in-Furness, Cumbria
Required for April 1976: U. P. 1. Applications are invited from suitably qualified and experienced teachers for the post of HEAD of this school. Salary £2,311 to £4,230 per annum. Applications should be sent to the Headmaster, Dalton-in-Furness C.E. School, Dalton-in-Furness, Cumbria. Closing date 15th January 1976.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

EAST SUSSEX
CHICHESTER C.E. (CONTROLLED)
Chichester, Sussex
Required for April 1976: U. P. 1. Applications are invited from suitably qualified and experienced teachers for the post of HEAD of this school. Salary £2,311 to £4,230 per annum. Applications should be sent to the Headmaster, Chichester C.E. School, Chichester, Sussex. Closing date 15th January 1976.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

AVON COUNTY
J.M. AND Y. SCHOOL
Northwick, Bristol BS11 3JH
Subject to certain conditions, re-employment and/or extension, dis-allowance of expenses and payable in accordance with Group 1 of the A.A. Allowance applicable. Appointment from April 1976.
Standard addresses available for further information and application forms, returnable by January 23, from Chief Education Officer, Avon House, North, P.O. Box 67, St. James Station, Bristol BS99 7DA.

EAST SUSSEX
CHICHESTER C.E. (CONTROLLED)
Chichester, Sussex
Required for April 1976: U. P. 1. Applications are invited from suitably qualified and experienced teachers for the post of HEAD of this school. Salary £2,311 to £4,230 per annum. Applications should be sent to the Headmaster, Chichester C.E. School, Chichester, Sussex. Closing date 15th January 1976.

BARNLEY
METROPOLITAN BOROUGH COUNCIL
THURGOODLAND
CHANGEMORE RD. S.
JUNIOR AND INFANT SCHOOL
Changemore, Sheffield
Required May 1976: HEAD TEACHER (Group 1). (Post 1541)
Application forms and further details for the above post available from and returnable to the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

MERTON
EDUCATION SERVICE
KINGSTON NURSERY SCHOOL
100 Kingston Road, Merton, London SW19 8JN
Required: Mrs. L. D. Harding
NURSERY TEACHER required, April 1976.
London Allowance £231. Interest-free facilities—total expense up to £200 and assistance towards removal expenses will all be considered where appropriate.
Application forms available from the Education Officer, 60 Huddersfield Road, Barnley, by 19th January 1976. Please quote appropriate post number when applying.

WALTHAM FOREST
EDUCATION SERVICE
BARCLAY INFANT SCHOOL
Canary Wharf, London E14 3JL
Required: NURSERY TEACHER required as soon as possible to work with a nursery class.
Application forms (enclose stamp and address envelope) obtainable and returnable to the Chief Education Officer, Municipal Offices, 11th Floor, London E14 3JL. Closing date 15th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON LOWER SCHOOL
Appointment of HEAD.
Applications are invited for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48. Under the authority's arrangements this school is due to become a free to nine Lower School.
Application form and further particulars from D. P. J. Brown, M.A., Chief Education Officer, County Hall, Bedford MK42 9AP, by 19th January 1976.

BEDFORDSHIRE
EDUCATION SERVICE
WILLINGTON PARK LOWER SCHOOL
Appointment of HEAD TEACHER.
Applications are invited for April 1976 for the post of HEAD of this school (salary £2,311 to £4,230 per annum) which will be held by a person aged five to 10. Estimated April roll: 48.





There is a possibility of
 taking being given with household
 removal expenses in appa-

ST. ANNES-ON-SHA

DRAWING up to and the
F.C.E. "O" level. The
will be on the Barnham 4.

[illegible]

WAB:JEN LUMPIRE:JL NMAA P.
SI-100121-

(Roll: 1,059)
 William Lane North, 18th
 Waltham, Stamford, 1894
 Inquired April 1894
 JOHN HANDEMAN 1894
 well established Herdman
 others a full range of
 subjects. Scale 3.
 London Addition 1894

(Reading Mark)

Applications are invited from qualified individuals for a position of **CLERICAL FACULTY** in the **Department of Work and Mechanical**. Successful candidates will have a minimum of 3 years' experience in a wide range of ability. The position is full-time and in the first three years will be on a probationary basis. Technical and Creative ability was an important factor in the selection process for this position.

Further details and application forms can be obtained from the **Headmaster at the** **College** completed and returned to the **College** within two weeks of the appearance of this advertisement.

Assistance with remuneration, lodging and travelling expenses is provided for those who have proved cases.

London Hedronal, 011
AYLESTONE HILL LIMITED

BOULDER
Arlington Avenue, NW6 TA
(April 1970)
#1 to 12 Social Priority
Committee, Mr. G. P. J. J.
B.A.
Applications are invited
multi-cultural school which
an exciting stage in the
monitors are available
courses for C.B.E. Certif
Extended Education, R.S.A.
and "A" levels of the
various subjects in the
The school is on one
campus and has its own
fields adjacent. There
crèche available for chil
old
Recruited in September

London allowance of £
annum is payable and a
scheme for assistance with

exchanges including local, long distance, travelling and leisure air.

Candidates should send a letter to the Education Officer, and present all qualifications, experience and references seven days.

DERBYSHIRE
EDUCATION COMMITTEE
WOLVERHAMPTON SCHOOL
Village Street, Derby Day
Applications are invited
post of ASSISTANT LECTURER
TECHNICAL DRAWING and
mechanical design. The
work in this educational
programme school 19000

Letters of application,
the names of the referees
and the names of the referees

201014 Car. 50 000140

County of Cleveland

SPECIAL SCHOOLS

SOUTHBROOK UPPER SCHOOL, Calcote Road, Hatfieldpool, Cleveland.
SCALE 1 POST PLUS S.S.A. Required as soon as possible, a suitably qualified and experienced teacher at this secondary school for N.H.s) day school. Applications particularly welcomed from teachers with an interest in children of 13-14 years, Isaac or Girls P.E. an advantage.

SOUTHBROOK SCHOOL, Calcote Road, Hatfieldpool, Cleveland
SCALE 1 POST PLUS S.S.A. Required as soon as possible, a suitably qualified and experienced teacher at this primary day school for slow learning pupils in the age range 5-11 years. Applications particularly welcomed from teachers with an interest in children of 8-9 years.

BILLINGHAM DAY SCHOOL, Riverside Avenue, Billingham, Cleveland TS23 2BH
SCALE 2(8) POST. Required for April, 1978, a suitably qualified and experienced teacher for the E.S.N. (H) school for pupils aged 7-15 years. The person appointed would act as class teacher for a class group of 14-16 year olds and to take responsibility for the organisation and development of senior boys' games and outdoor pursuits.

FERNDALE SCHOOL, Collage Road, Middlesbrough, Cleveland
SCALE 2(8) POST. Required for April, 1978, a suitably qualified and experienced teacher. The person appointed will be responsible for the running of a pre-school play group for mentally handicapped children and individual and remedial work within the school.

SERVICE FOR HEARING IMPAIRED CHILDREN

(Head of Service Mr. G. B. Campbell)

AYREBONE INFANT SCHOOL, Parliament Road, Middlesbrough, Cleveland TS1 4NT
Nursery/Infant Partially Hearing Unit
SCALE 3 POST PLUS S.S.A. Required for April, 1978, a suitably qualified and experienced teacher for the above unit which can cater for up to 8 children. The unit complements the one at the neighbouring junior school and comes within the oversight of the County Service for Hearing-impaired Children. Candidates should possess a qualification in the Education of the Deaf.

BEVERLEY SCHOOL FOR THE DEAF AND PARTIALLY HEARING, Beverley Road, South Shields, Middlesbrough, Cleveland TS4 0LG
Senior Department
SCALE 1 POST PLUS S.S.A.
Applications for April, 1978, for a teacher for work in the Senior Section of the school. Applicants should be qualified teachers of the deaf with an interest in some aspect of C.S.E. work. Forms of application for the above two posts obtainable from and returnable to the Head of Service, Beverley School for the Deaf, Beverley Road, South Shields, Middlesbrough, Cleveland. Selection may be made by letter or by application forms obtainable from the Head Teachers at the addresses above mentioned. Applications by letter should include detailed information regarding education (training, qualifications and experience, together with the names and addresses of three referees. Letters of application and completed application forms should be submitted direct to the Head Teachers within 14 days of the appearance of this advertisement, unless otherwise stated.

THE CITY OF Middlesbrough

EDUCATION DEPARTMENT

SPECIAL SCHOOLS

SECOND MASTER

LONGWILL SCHOOL
Bell Hill, Birmingham B1 1LD
Applications are invited from qualified and experienced teachers of H.H.s) for the post of 2nd Master/Mistress in this school for deaf children (Group 75).
Further information and application forms may be obtained from the Headteacher. Interested applicants are welcome to visit the school (021-476 3823).

OTHER POSTS

CALTHORPE YOUTH AND ADULT CENTRE
Leopold Street, Birmingham B12 6TA
Applications are invited from qualified teachers who feel challenge to work in an establishment providing the full range of learning (E.S.N. (H) and (S)) pupils. A new building for the purpose was completed in September, designed to cater for 500 pupils during the day and to offer community and in-service training facilities out of school hours. This is a pioneer project and we are seeking applications motivated by the challenges presented.
Required for Easter, 1978:
(a) HEAD OF CURRICULUM (Second Mistress, Special School post.) (Scale 26 post.)
(b) Teacher responsible for transfer of pupils to normal school (Scale 26 post.)
(c) HEAD OF BOYS' CRAFT DEPARTMENT. (Scale 28 post.)

THE DAME ELLEN PINBENT SCHOOL
Ardens Road, Birmingham B10 9HW
For as early as possible WOODWORK TEACHER to specialise in this subject. Scale Post could be available for successful applicant.

LONGWILL SCHOOL
Bell Hill, Birmingham B31 1LD
Round Table Athletic Centre
Applications are invited from qualified teachers for posts as Area Head Teachers at the Round Table Athletic Centre, attached to this school. This new purpose-built Centre for children 11-16 years, will open in April, 1978. A Scale 2(8) post is available for a suitably qualified and experienced person.
Further information and application forms may be obtained from the Headteacher. Interested applicants are welcome to visit the Centre (021-476 3823).

YOUNGMEER SCHOOL
Queensbridge Road, Moseley, Birmingham B15 8GB
Assistant Teacher, Scale 1, required, for small remedial group of physically handicapped and delicate infants. This post, with Special Schools allowance, offers unique opportunity for experience in meeting individual needs of children with a wide range of communication and personal difficulties. Application forms from Head Teacher, who will gladly arrange a visit (Tel: 021-449 1081).
There is a scheme for assistance with removal expenses.

COLTNESS HOUSE-WISHAW ASSISTANT TEACHER

Required at this residential school for physically handicapped children aged 5-16 years.

We are looking for an enthusiastic person with all-round teaching ability and a special interest in art and craftwork.

This is a challenging post in which initiative is encouraged. Small classes. Salary according to Teviot Scales.

Barnardo's is a Christian based Society and offers conditions of service in line with Local Authorities.

Application forms from Miss S. Massey, 22 Drumshugh Gardens, Edinburgh.

Further information, The Headmaster, Tel. Wishaw 72971.



Barnardo's

SPRING HILL SCHOOL- RIPON, YORKSHIRE

ASSISTANT TEACHER

Required at this residential school for E.S.N./Maladjusted children.

Salary on Burnham Scale 1 plus Special Schools Allowance.

Barnardo's is a Christian based Society and offers conditions of service in line with Local Authorities.

Applications to Mr. D. Spicer, 388/394 Low Lane, Horsforth, Leeds LS18 4SS.

Inquiries to The Headmaster, Tel. Ripon 3320.



Barnardo's

NATIONAL CHILDREN'S HOME

HILTON GRANGE SCHOOL BRAMHOPE, NR. LEEDS

(Boarding School for Educationally Sub-Normal Boys and Girls recognized as efficient by the Department of Education and Science.)

Required for EASTER 1976, a Teacher to do general class teaching and Physical Education with the boys.

An outdoor pursuits programme is being developed and the successful candidate will be expected to offer help with this project.

Required for EASTER 1976, a Teacher able to offer general subjects and to specialize in Physical Education with the girls. There are good facilities for P.E. (including outdoor pursuits), and good contacts with neighbouring schools for sporting activities. The service is fully recognized and comparable under the Teachers' Superannuation Act, Burnham Scale 1 plus special school allowance of £351 p.a.

The successful candidate will be expected to undertake a limited amount of administrative duties for which the recognized experience should be commensurate to the Christian way of life. Intending applicants are welcome to visit the school by prior arrangement with the Headmaster (Tel. Arthington 2187).

Application forms and further particulars from the Education Secretary (Dept. E.S.N.), National Children's Home, 85 Highbury Park, London N5 1UD.



**NORFOLK
COUNTY COUNCIL
Education Department**

The Authority is expanding its facilities for pupils with emotional and social difficulties. The work is challenging and requires enthusiasm, resourcefulness, insight and good teaching skills. Teachers work in close co-operation with the Schools' Psychological Service and are supported by adequate welfare staff.

Applications are invited from teachers with the relevant experience and training for appointment in January 1976 to the following post:-

STADBROOK CHILD STUDY CENTRE, CORLESTON

Assistant Teacher

(with primary school experience) Scale 2 (Houghton)

Removal expenses are payable in accordance with the Authority's scheme. Application forms and further particulars may be obtained by sending a stamped addressed envelope to the County Education Officer, County Hall, Marchwood Lane, Norwich NR1 2PS, to whom completed forms should be returned as soon as possible.

SPECIAL EDUCATION Scale 2 Posts continued

CAMBRIDGESHIRE
CAMBRIDGE AREA
SPECIAL EDUCATION
TEACHER: From Easter to join an established post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

NORTHAMPTONSHIRE
EDUCATION DEPARTMENT
ASSISTANT TEACHER

Required as soon as possible to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

SANDWELL
METROPOLITAN BOROUGH OF
STURROPS LODGE SCHOOL

Headmaster, R. D. Houghton, 10, The Grange, Cambridge CB2 3PL.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

CUMBRIA
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

DERBYSHIRE
EDUCATION COMMITTEE
BRACKENFELD SCHOOL

Headmaster, R. D. Houghton, 10, The Grange, Cambridge CB2 3PL.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

GLoucestershire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Derbyshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

TUNBRIDGE WELLS DIVISION ASSISTANT TEACHER

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

CAMBRIDGESHIRE EDUCATION COMMITTEE SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Staffordshire
EDUCATION COMMITTEE
SPECIAL EDUCATION

Required for Easter 1976, a Teacher to take over a post in a residential school for physically handicapped children aged 5-16 years.

Further details of post from Mrs. W. J. H. Houghton, 10, The Grange, Cambridge CB2 3PL.

Infant and Junior School teachers, Secondary School teachers of English, Mathematics, Physics, Biology and Chemistry

Up to 'O' and 'A' levels required for experimental school in Toronto for January and September 1976. Must have diploma of education. Send detailed curriculum vitae to:

The Toronto French School
2 Carlton Street, Suite 919,
Toronto, Ontario, Canada M5B 1J3

The British Council

invites applications for the following posts:

Norway

Teachers of English

Required for August 1976 by Folkeuniversitet (the Folk University) of Norway. Candidates should be single, preferable age range 22-35. Normal duties to teach English to classes in Secondary Schools and adult evening classes. Candidates should be qualified teachers, graduates or college trained, with English, Languages or History as their main subject. Some teaching experience is required preferably in EFL. Salaries 22,800-27,600 Norwegian Kroner per annum according to qualifications and experience. Fares paid both ways. Paid holidays totaling at least 34 days. Teachers usually travel from Britain in August 8. One-year contract normally renewable once, with salary increment. Guaranteed by British Council.

76 CO 1-10

Please write, quoting the reference number, for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.

Turkey, Ankara College

There are vacancies for September, 1976, for qualified teachers in English Language and Literature, Mathematics, Biology, Chemistry, Physics and General Science at the Middle and High School levels.

Ankara College is a co-educational English medium school with a student roll of 6,286.

Salaries, which at present are under review, are paid in local currency. A proportion of salary can be transferred into Sterling. Two-year contracts for teacher and wife with return passages paid. Full medical cover and insurance under reciprocal agreement. Interviews will be held in BRITAIN in January or February, 1976.

Write for application form to:

Head of Foreign Staff
Ankara College
48 Ziya Gökalp Caddesi
Ankara, TURKEY

The British Council

invites applications for the following post:

Headship (Spain)

The British Council School, Madrid, a co-educational day school at present mainly for Spanish pupils in the age range 5-14.

New buildings planned (on a new site) allowing for expansion to university entrance. Degree, teaching certificate, minimum of 10 years' teaching experience including a position of responsibility. Experience at secondary level, knowledge of Spanish or willingness to learn essential. Men or women preferably aged 35-45.

Salary: £6,387-£7,011 p.a. tax free, directly related to Burnham scale for present size of school, to be reassessed as school expands. Benefits: Overseas and children's allowances; free accommodation; medical scheme, employers' portion of superannuation; fares and baggage. Two-year Direct Service contract with the British Council, renewable. 76 SS 1

Please write, briefly stating qualifications and length of appropriate experience, quoting reference number, for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.

The British Council

invites applications for the following posts:-

Head of Digestive Physiology Division (Brazil)

Federal University of Pernambuco, Recife. Doctorate and substantial experience in the field of digestive physiology. Salary: £2746-£4264 pa. Two-year contract. 74 BU 81

Teacher of Science (Spain)

The British Council School, Madrid. A co-educational day school at present mainly for Spanish pupils in the age-range 5-14. New buildings planned (on a new site) allowing for expansion to university entrance. Teacher of Science for 9-14 year olds. Candidates should be single with a degree or teaching certificate in or including Science and a minimum of 3 years' teaching experience. Salary: £2546-£3990 pa. at present rates of exchange. Benefits: Expenditure allowance; employer's portion of superannuation; no local tax. Two-year contract, renewable. 75 SS 143

Teacher of English (Algeria)

Institut National de la Productivité et du Développement Industriel, Algiers. Degree, postgraduate TEFL qualification and experience in ESP. Salary: £5400-£6720 pa. One-year contract, renewable. 75 CO 151

Lecturer in English (Algeria)

University of Constantine. Degree, postgraduate qualification in Linguistics or Methodology and experience in TEFL. Knowledge of French essential. Salary: £2746-£4264 pa. Benefits: Overseas allowances. Two-year contract. 75 CU 99

Return fares are paid. Local contracts are guaranteed by the British Council. Please write, briefly stating qualifications and length of appropriate experience, quoting relevant reference number for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1Y 2AA.

MINISTRY OF DEFENCE SERVICE CHILDREN'S EDUCATION AUTHORITY



SECONDARY TEACHER VACANCIES 1976

Applications are invited from qualified teachers, who are at present teaching in schools in the United Kingdom, for vacancies in Service Children's Schools overseas for April and September, 1976, mainly in British Families Education Service Secondary Schools in North West Europe. Experienced teachers of remedial education, music, languages and mathematics are particularly needed.

In addition, the following specific requirements are known for April, 1976:- King's School, Gutersloh, Scale 3, Head of Home Economics. The department is part of the Creative Arts Faculty, and the successful applicant would be committed to the development of Home Economics within the faculty programme.

Cookery and Needlework are both taught to 'O' and CSE levels in large, well-equipped rooms. Windsor Boys' School, Hamn, Scale 1, Teacher of History to GCE 'O' level and Religious Education up to CSE. Help with school Combined Cadet Force will be a strong recommendation.

Successful candidate must be prepared to help with boarding school duties. EDA of £720 per annum is payable.

Windsor Girls' School, Hamn, Scale 1, Teacher of Commercial Subjects to teach Typewriting, Short-hand, Commerce and associated subjects. Successful candidate must be prepared to help with boarding school duties. EDA of £720 per annum is payable.

NOTES: Salary will be in accordance with current Burnham Scales, plus Inner London Allowance and a tax-free Foreign Service Allowance (details will be supplied). Normal superannuation rights are safeguarded. Return passages are free. Accommodation is provided or an allowance towards rent given. Initial engagement is for three years. Applicants should not be over the age of 47 years at the commencement of appointment and should be currently resident in the United Kingdom. Requests for application forms should be made on a postcard to:-

SERVICE CHILDREN'S EDUCATION AUTHORITY (SC)

Teacher Appointment Section
1AE Court Road, Egham, London TW20 5NR

MINISTRY OF DEFENCE SERVICE CHILDREN'S EDUCATION AUTHORITY



ADVISORY TEACHERS IN PRIMARY EDUCATION-SCALE 2

APRIL 1976

Applications are invited to fill a number of vacancies for Advisory Teachers in Primary Education Service primary schools in North-west Europe.

Each Advisory Teacher appointed will be home-based at a particular primary school but involved in advising class teachers of other schools within a twenty-five mile radius. His/her work will be directed by a regional Curriculum Development Officer and linked to that of a Teachers' Centre supported by other Advisory and Warden.

These vacancies, all at Scale 2, are for:

Three Advisory Teachers in Early Childhood Education.

Two Advisory Teachers in Creative Arts.

Two Advisory Teachers in Language Development (including remedial education).

Four Advisory Teachers in Mathematics/Science.

Two Advisory Teachers in Physical Education.

One Advisory Teacher in Music.

Applicants should have significant experience of teaching children of primary school age and have particular interest and expertise in the relevant area of the curriculum.

Applicants should be prepared to own and drive a car, for which appropriate mileage allowance will be paid.

NOTES: Salary will be in accordance with current Burnham Scales, plus Inner London Allowance and a tax-free Foreign Service Allowance (details will be supplied). Normal superannuation rights are safeguarded. Return passages are free. Accommodation is provided free or an allowance towards rent given. Initial engagement is for three years. Applicants should not be over the age of 47 years at the commencement of appointment and should be currently resident in the United Kingdom.

Requests for application forms should be made on a postcard to:-
SERVICE CHILDREN'S EDUCATION AUTHORITY (SC)
Teacher Appointment Section
1AE Court Road, Egham, London TW20 5NR

EDUCATION COMMITTEE YOUTH AND COMMUNITY SERVICE

Applications are invited for the following posts:-

SENIOR YOUTH AND COMMUNITY SERVICE OFFICER (Training and Development)

(Salary, £4,638 to £5,172 (Soulbury 18-19) plus £361 London Weighting)

Applicants for this post should be qualified and experienced Youth and Community Service Workers prepared to accept responsibility for organizing a wide range of Member and Leader training. The Borough's service has expanded rapidly during the past two years, and this post offers an excellent opportunity for developing many new projects at present in the early stages of formation requiring an imaginative and energetic approach. Ref. E/10

YOUTH AND COMMUNITY SERVICE OFFICER

(Salary, £3,900 to £4,438 (Soulbury 11-16) plus £361 London Weighting)

This is an interesting and challenging post for a Qualified Worker who has had at least five years full-time experience in the Youth and Community Service. The person appointed will have overall responsibility for an area of the Borough. Ref. E/11

Closing dates, January 22, 1976.

Application form available from:-
The Administration Manager, Room 708,
Brent House, High Road, Wembley, Middlesex
Telephone 01-853 0371 (24 hours Ansafone service)

London Borough of
BRENT

Oxford University Press Nigerian Branch require a Primary Schools Materials Developer

The Nigerian Branch of Oxford University Press requires a full-time Materials Developer to develop a 6-year Primary School course for Nigeria. Contract Period 3 years

Location

The first 3 months with the English Language Teaching Development Unit of O.U.P. in Colchester, thereafter in Zaria, Nigeria.

Salary

£6,000 to £8,000 p.a.

Benefits

In Colchester: accommodation allowance

In Zaria: free furnished accommodation, car, baggage allowance, one month's passage-paid home leave per annum, terminal bonus, outfitting allowance, free medical treatment

Postgraduate qualifications in TEFL/ TESL or Linguistics, minimum of five years English Language Teaching experience, of which some time should have been in Primary School, evidence of ability to write teaching materials.

Write giving full details and c.v. to The Director, ELTDU, 21 Lexden Road, Colchester, Essex CO3 3PP

The Centre for British Teachers in Europe Limited

GERMANY

The Education Authorities in Nordrhein-Westfalen and Bremen require British teachers for the academic year 1976-77 to teach English in secondary schools and Further Education establishments. There are vacancies in Gymnasien in both States, and in Berufsbildende Schulen and Gesamtschulen in Nordrhein-Westfalen.

Qualifications For all types of school applicants must possess a university degree, a teaching qualification and some teaching experience. All candidates should have a good working knowledge of spoken German.

National Insurance and Superannuation The employer's contribution to the British National Insurance Scheme and to the employee's Pension Scheme (where applicable) will be paid in full by the Centre. The employee's contributions to these schemes are the only deductions from the teacher's salary.

Recognition of Service Service with the Centre in Germany is recognised by the British Education Authorities as full teaching service for incremental purposes on return to the United Kingdom.

Preparation All teachers appointed are given full information about living and working conditions in Germany. Briefings are held in April and May in Britain, and Orientation Courses in Germany immediately before teachers go to their schools.

Resettlement The Centre's Resettlement Department gives advice to teachers returning to teach or study in Britain after service with the Centre.

Fares Fares and baggage allowances to and from Germany for teachers and their families are paid by the Centre.

For details and application forms apply to: The Centre for British Teachers in Europe Limited (1), Quality House, Quality Court, Chancery Lane, London WC2A 1HP. Tel: 01-242 2982-5.

ADMINISTRATION Local Education Authority continued

HERFORDSHIRE COUNTY COUNCIL

Applications are invited from qualified teachers for the following posts:-

APPOINTMENT LEADER

Applications are invited from qualified teachers for the following posts:-

SENIOR YOUTH AND COMMUNITY SERVICE OFFICER (Training and Development)

(Salary, £4,638 to £5,172 (Soulbury 18-19) plus £361 London Weighting)

Applicants for this post should be qualified and experienced Youth and Community Service Workers prepared to accept responsibility for organizing a wide range of Member and Leader training. The Borough's service has expanded rapidly during the past two years, and this post offers an excellent opportunity for developing many new projects at present in the early stages of formation requiring an imaginative and energetic approach. Ref. E/10

Application form available from:-
The Administration Manager, Room 708,
Brent House, High Road, Wembley, Middlesex
Telephone 01-853 0371 (24 hours Ansafone service)

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

ADMINISTRATION Local Education Authority continued

HERFORDSHIRE COUNTY COUNCIL

Applications are invited from qualified teachers for the following posts:-

APPOINTMENT LEADER

Applications are invited from qualified teachers for the following posts:-

SENIOR YOUTH AND COMMUNITY SERVICE OFFICER (Training and Development)

(Salary, £4,638 to £5,172 (Soulbury 18-19) plus £361 London Weighting)

Applicants for this post should be qualified and experienced Youth and Community Service Workers prepared to accept responsibility for organizing a wide range of Member and Leader training. The Borough's service has expanded rapidly during the past two years, and this post offers an excellent opportunity for developing many new projects at present in the early stages of formation requiring an imaginative and energetic approach. Ref. E/10

Application form available from:-
The Administration Manager, Room 708,
Brent House, High Road, Wembley, Middlesex
Telephone 01-853 0371 (24 hours Ansafone service)

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

London Borough of
BRENT

City of Sheffield Education Dept.

SENIOR ADVISER FURTHER EDUCATION

£6570-£7290 (subject to arbitration award)

Applications are invited from candidates with good substantial experience in Further Education. The successful candidate will be expected to work in close association with advisory colleagues, senior and assistant education officers, headteachers and principals and their staff. Application forms and further particulars may be obtained from the Chief Education Officer, P.O. Box 67, Leopold Street, Sheffield S1 1RA, (quoting ref. F7P/KF). Completed forms should be returned to the Chief Personnel Officer, 2/4 Malinda Street, Sheffield S1 1QD, within 14 days of the appearance of this advertisement.

STRATHCLYDE REGIONAL COUNCIL Department of EDUCATION

GLASGOW Sub-Region

Post Ref. No. GW/EDU/114.

AREA SENIOR CAREERS OFFICER

GOVAN, GLASGOW

Salary Scale: £3,474-£3,825, Grade AP3

(1) Developing and co-ordinating work of area Careers Officers who are responsible for giving vocational guidance to pupils in Secondary Schools and Further Education Students.
(2) Supervising on-the-job in-service training of Area Careers Officers.
(3) Maintaining regular contact with local industry.

Applicants should hold Degree of British University and/or Diploma in Careers Guidance. They must also be experienced in careers guidance work.

Full details and application forms may be obtained from the Assistant Director of Manpower Services, 21 Gordon Street, Glasgow, G1 3PB, to whom completed forms should be returned by 18th January 1976.

R. M. O. McCULLOCH, Director of Manpower Services

Post Ref. No. GW/EDU/147.

DEPUTE SENIOR CAREERS OFFICER

GLASGOW

Salary Scale: £3,474-£3,825, Grade AP3

Assisting the Senior Careers Officer in developing and co-ordinating work of the area Careers Team who are responsible for giving vocational guidance to pupils in Secondary Schools. Will be involved also in some administrative duties.

BOROUGH OF SOUTH TYNESIDE EDUCATION DEPARTMENT Careers Officer

£2,127-£2,853/£3,282

The vacancy is at the South Shields Careers Office. The successful candidate will be responsible for careers guidance, working with pupils in the non-examination, C.S.E., G.C.E., "O" level range. Applicants should preferably be graduates who possess the Diploma of the Youth Employment Services Training Board/Diploma of Vocational Guidance. Experience in a professional post within the Careers Service will be an advantage, although applicants completing full-time professional training at the end of this year will be considered.

Application forms from Personnel Department (Ref. 33), Westgate Hall, Westgate Village, South Shields (Ref. 2191). Closing date: 23rd January, 1976.

SHEPHERD ISLANDS COUNCIL EDUCATION DEPARTMENT

Appointment of Archivist

This is the first appointment of a newly created post within the Library Service of the Education Committee. Applicants should possess a good Honours degree, a diploma in archive administration or relevant research experience and a knowledge of Shetland history will be advantageous.

Salary will be on A.P. 11/111, £3,096 to £3,282 per annum plus Island Allowance of £183. The post is supernumerary. Generous assistance is given towards removal expenses and assistance with housing may also be given.

Application forms and full information regarding the post may be obtained from Director of Education, 1 Harbour Street, Lerwick, ZE1 0LS. Completed forms should be returned by the 18th January, 1976, to Finance Dept. (Personnel Section), 4 Market Street, Lerwick.

EDUCATION DEPARTMENT

SENIOR ADVISER

Particular responsibility for Special Education and the Remedial Teaching Service. Southbury Scale 22-26, £5,670 to £8,380.

This post would be suitable for well qualified experienced teachers in special education who have good organizing ability, and feel able to offer advice on all aspects of the special school and Remedial Teaching Service and organization. It would be an advantage to have served as a Head Teacher. The successful applicant will be responsible for general work of schools in an area of the Borough. Essential car user allowance.

In addition to the special responsibility, there will also be a responsibility for general work of schools in an area of the Borough. Essential car user allowance.

ASSISTANT EDUCATION OFFICER

(Finance and Administration)

P.O.1 (6-10), £5,406 to £8,057.

This is a four year post in the Department, and you will work in close consultation with the Senior Assistant Education Officer (Finance and Administration) particularly in the financial aspects of the service. You must have detailed knowledge of the working of the service and have experience in preparing estimates and financial control.

This post is most likely to be suitable for candidates at present working in either an Education or Treasury Department, or for suitably experienced teachers wishing to enter Administration. Possession of good degree or professional qualification is essential.

YOUTH WORKER

St. John's Youth Centre, Huxton, £4,008 to £4,524.

This is a key post at a very attractive Centre, with good youth service facilities, in addition to being responsible for the Centre programme and staff you will be expected to work closely with the Youth Adviser and also be responsible for one or more specific areas of work within the District. Ring Mr. Lennan, 051-489,000, extension 537, for further information about this post.

Application forms for the above posts from the Borough Education Officer, Council Offices, Archway Road, Huxton, Liverpool L38 9UX. Tel: 051-489,000.

Closing date, January 23, 1976.



ADMINISTRATION Local Education Authority continued

STAFFORDSHIRE
COUNCIL
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

SUNDERLAND
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

General

RUCKINGHAMSHIRE
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

LEEDS
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

ORGANISER
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

SURREY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

ISLE OF WIGHT
COUNCIL
Child and Family Guidance Service
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

Senior Social Worker
£3,186-£4,095
The successful applicant will join two other Social Workers in a team which practises individual, group and family psychotherapy. The service which operates within the Education Department is based in Newport and collaborates with other workers in the fields of health, religion and education involved with children and families. In this respect close links are maintained with the mainland.

Applicants must be qualified social workers, preferably with relevant experience in the field of Child and Family Guidance. The Island offers its own unique style of life, enjoying all the benefits of a predominantly rural and holiday area. The County Council offers a generous scheme of removal expenditure reimbursement and may be able to offer temporary accommodation. For professional details telephone Newport 3602, otherwise application forms and further details may be obtained from the Personnel Officer, County Hall, Newport. Closing Date: 31st January 1976.

SUMMER SCHOOL DIRECTORS

Required for residential posts during the summer holidays. The successful candidate will be responsible for the day-to-day running of the summer school, including the management of the summer school budget, the management of the summer school staff, and the management of the summer school premises. The post holder will also be responsible for the management of the summer school services, including the management of the summer school budget, the management of the summer school staff, and the management of the summer school premises.

THE OPEN UNIVERSITY
The Open University has vacancies for Summer School Directors. The successful candidate will be responsible for the day-to-day running of the summer school, including the management of the summer school budget, the management of the summer school staff, and the management of the summer school premises. The post holder will also be responsible for the management of the summer school services, including the management of the summer school budget, the management of the summer school staff, and the management of the summer school premises.

Examiners

EAST MIDLAND REGIONAL EXAMINATIONS BOARD
(Certificate of Secondary Education)
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

NOTTINGHAMSHIRE COUNTY COUNCIL
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

NOTTINGHAMSHIRE COUNTY COUNCIL
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

NOTTINGHAMSHIRE COUNTY COUNCIL
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

NOTTINGHAMSHIRE COUNTY COUNCIL
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

NOTTINGHAMSHIRE COUNTY COUNCIL
The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

COUNTY OF SOUTH GLAMORGAN EDUCATION DEPARTMENT

Youth and Community Organiser

Southbury 13-17 £4,218-£4,854 (under review)

The person appointed will have responsibility for the Senior Youth and Community Organiser, for development, organisation and administration of County's Youth and Community Services.

Application forms and further particulars are available from the Personnel and Management Services Officer, County of South Glamorgan, County Headquarters, Newport Road, Cardiff (Tel. No. (0222) 49902-3412). Completed forms must be returned by 31 January, 1976.

Education

professional assistant (schools)

£4,689-£5,250

We require a graduate with teaching experience for this position. The person appointed will be responsible for the day-to-day running of the education department, including the management of the education department budget, the management of the education department staff, and the management of the education department premises. The post holder will also be responsible for the management of the education department services, including the management of the education department budget, the management of the education department staff, and the management of the education department premises.



Nottinghamshire
County Council

BOLTON METROPOLITAN BOROUGH

Applications are invited for the post of CAREERS OFFICER

to work with a team responsible for groups of schools within the Borough.

Applicants should be suitably qualified and preferably hold the Diploma of the Youth Employment Service Training Board.

Salary Grade AP2/3 £2,529 to £3,282

Application forms, available from the Personnel Officer, Town Hall, Bolton, should be returned by 19th January, 1976.

TECHNICIAN EDUCATION COUNCIL Appointment of ADVISORY OFFICERS

Applications are invited for a small number of technical posts of Advisory Officer, which are established because of the demands of the County's developing programme. The responsibilities will include curriculum development, advisory and committee's in the fields broadly related to Education and Science. Applicants should be appropriately qualified and have suitable experience in teaching and/or industrial work in one of the above fields. Salaries for the posts will range from £5,500 to £7,000 p.a. and salary will depend on qualifications and experience. Successful candidates will be invited to interview for an appointment on this basis. Further particulars of the appointments can be obtained from the Chief Officer (Ref. AO), Education Council, 70 Portland Place, London W1A 4AA. Closing date for applications is 30th January 1976.

ilea INNER LONDON EDUCATION AUTHORITY

BEORMUND HOSTEL, Crosby Row, Long Lane, Southwark SE1

Resident Warden

required to take charge of this new hostel for 20 boys attached to a day school for 50 emotionally disturbed children aged 5 to 16 years.

The Warden will be responsible to the Headmaster for the day-to-day running of the hostel including the work of the child care staff and the organization of activities.

Applicants should be suitably qualified and have residential child care and/or teaching experience.

Commencing salary on the scale £3,221-£3,578. Self-contained furnished three-bedroom flat.

For further details please apply to Miss Ross, EO/Estab. 6, The County Hall, London, SE1 7PB, or telephone 01-633 7465.

LANCASHIRE EDUCATION COMMITTEE

APPOINTMENT OF

Trainee Educational Psychologists

Applications are invited for appointment to above posts with a view to secondment on post graduate Training Courses in 1976/77. Applicants for Trainee posts should possess an Honours degree in Psychology and must have completed 2 years' teaching experience at the time of admission to a post graduate course. Commencing salary will be within Southbury Salary range Points 6-10 (£3,225-£3,765) according to qualifications and experience.

On successful completion of a post graduate course, trainees will be appointed, subject to availability of vacant posts, as an Educational Psychologist within one of the Area Teams of the Schools Psychological Service. Application forms and further particulars are obtainable from the Chief Education Officer, Education Department, County Hall, Preston, P1 8BJ. Applications to be returned no later than 23rd January, 1976, quoting reference A317/10/JAG.

Education Department, County Hall, Preston, P1 8BJ, December, 1975.

ilea INNER LONDON EDUCATION AUTHORITY

SCHOOLS' PSYCHOLOGICAL SERVICE Educational Psychologist

Stamford House Assessment and Classifying Centre, Shepherd's Bush, W12. Salary in the range £7,292 to £8,093 (including £116 London Weighting Allowance). EDUCATIONAL PSYCHOLOGIST to work with three other staff at Stamford House Centre co-operating with the psychiatric team and staff of the establishment. The work involves intellectual and personality assessment of boys presenting a variety of educational, clinical and treatment problems. Applicants should possess academic and professional qualifications in educational psychology; clinical and teaching experience are essential.

Details and application forms from the Education Officer (EO/Estab. 2A/1), Addison Street Annex, The County Hall, London SE1 7PB. (01-633 6175.) Forms to be returned by 29 January, 1976.

Education Department—Dukinfield

Educational Psychologists £4,854-£5,490

(Full time and part time posts available)

Required to assist in the development of the service in Tameside. The Authority has a positive attitude to the role of the Psychological Service and its resources are used by the wider community. The service operates from its own offices with the Authority's other services and with the Area Health Authority. The work offers a wide range of interest and responsibility. Car user allowance is payable—assistance will be given with the general expenses of moving home in appropriate circumstances. Consideration will be given to applicants who are able to work part time. The work offers a wide range of interest and responsibility. Car user allowance is payable—assistance will be given with the general expenses of moving home in appropriate circumstances. Consideration will be given to applicants who are able to work part time.

For further details and further details from the Chief Personnel Officer, Marston House, Marston Way, Ashton-under-Lyne, Lancashire, to be returned by 28th January.



EXAMINERS Appointments continued

LONDON
THE UNIVERSITY
UNIVERSITY INCHARGE
EXAMINATIONS COUNCIL
GENERAL CHAIRMAN OF
EDUCATION EXAMINATIONS
The Council invites applications for appointment as Examiners in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

LIVERPOOL, BIRMINGHAM, SOUTHAMPTON, WINCHESTER, GREATER LONDON
The Council invites applications for appointment as Examiners in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

Ancillary Services

ESSEX
COUNTY COUNCIL
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

GLoucestershire
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

SURREY
THE UNIVERSITY
UNIVERSITY INCHARGE
EXAMINATIONS COUNCIL
GENERAL CHAIRMAN OF
EDUCATION EXAMINATIONS
The Council invites applications for appointment as Examiners in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

WALSLEY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

WALSLEY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

WALSLEY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

WALSLEY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

WALSLEY
EDUCATION DEPARTMENT
OFFICE OF THE CHIEF CLERK
£3,282 to £3,905
The successful candidate will be responsible for the administration of the Council's education services. The post holder will be responsible for the day-to-day running of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises. The post holder will also be responsible for the management of the Council's education services, including the management of the Council's education budget, the management of the Council's education staff, and the management of the Council's education premises.

Miscellaneous

LIVERPOOL, BIRMINGHAM, SOUTHAMPTON, WINCHESTER, GREATER LONDON
The Council invites applications for appointment as Examiners in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

LIVERPOOL, BIRMINGHAM, SOUTHAMPTON, WINCHESTER, GREATER LONDON
The Council invites applications for appointment as Examiners in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the examination board, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises. The post holder will also be responsible for the management of the examination board services, including the management of the examination board budget, the management of the examination board staff, and the management of the examination board premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

PROJECT LEADER IN FAMILY CENTRE
The Council invites applications for appointment as Project Leader in the following subjects: English, Mathematics, Science, History, Geography, Music, Art, Physical Education, and Modern Languages. The successful candidate will be responsible for the day-to-day running of the project, including the management of the project budget, the management of the project staff, and the management of the project premises. The post holder will also be responsible for the management of the project services, including the management of the project budget, the management of the project staff, and the management of the project premises.

NOTTINGHAMSHIRE

Area Health Authority (TEACHING)

Suitably qualified and experienced Speech Therapists are invited to apply for the post of

Area Speech Therapist

(Chief Speech Therapist I Grade—£4,872-£6,033 p.a.) The appointment carries high responsibility for the coordination and efficient management of all Speech Therapy services in Nottinghamshire, a large Teaching Area of four Health Districts. For further information and application forms please write or telephone:

Area Personnel Department, Nottinghamshire Area Health Authority (Teaching), Lichfield Lane, Berry Hill, Mansfield, Notts. Telephone: Mansfield 34251. Closing date for receipt of applications 26th January, 1976.

Shropshire Education Committee

SHROPSHIRE FIELD STUDIES AND OUTDOOR PURSUITS CENTRE, ARTHOG, GWYNEDD

A vacancy exists at this large and well-appointed Centre for the post of

COOK/CATERER

to be responsible for the running of domestic life at the Centre. Applications will be considered for a non residential post, but accommodation is available for a single person. Salary £2,040-£2,193. Application forms and further particulars from: The Warden, Shropshire Field Centre, Arthog, Gwynedd, North Wales LL39 1BX, should be returned by the 23rd January, 1976.



Salop County
Council

PERIPATETIC MUSIC TEACHER

Applications are invited from violinists interested in teaching and playing in Hillingdon Schools. A Scale 2 post is available for a suitably qualified and experienced candidate.

